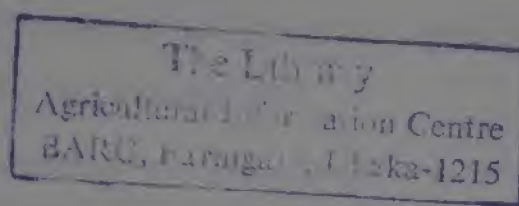


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UTILIZATION OF AGRO-ECOLOGICAL ZONES DATABASE  
AND  
INSTALLATION OF GIS FOR AGRICUTURAL DEVELOPMENT

BGD/95/006 GIS at BARC

GIS-



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End of Assignment Report  
Socio-Economic Specialist

April, 2001



BANGLADESH AGRICULTURAL RESEARCH COUNCIL  
FARMGATE, DHAKA

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# End of Assignment Report

## 1. Duration of Assignment of Socio-Economic Specialist and other Consultancy Services.

Both bio-physical and socio-economic data generation/collection technical services in the GIS project were provided by the professional consultants in the respective field. The position of Socio-Economist in the GIS Project at BARC was for 36 person months. The approved project period has been January 1994 to June 2001 (with fresh approval of start date from 1 July 1996) when all the stipulated consultancy services were completed. The project became functional only on 1 July 1996, and this is the start date recognized by GOB/UNDP. In the Project there were provisions for Land Resources Specialist (36 person months), Farming System Specialist (24 person months) and System Analyst/Programmer (45 person months) in addition to the Socio-Economist. Provision for expatriate consultancy (53 person months) was also there in the project. Objectives of GIS project are discussed in detail in TAPP/Prodoc.

## 2. Socio-Economic Data and the GIS.

The GIS Project has envisaged several important objectives to fulfill of which the main objective was to transfer the results obtained by the Land Resources Appraisal Project (Agro-Ecological Zones) to agricultural researchers, extension personnel, development planners and scientists at national, regional, district and upazila levels in order to draw action program for agricultural development planning.

The specific objectives of GIS project were :

- Sensitize people at the planning and decision making process about the importance of AEZ/GIS as a planning tool.
- Develop manpower on the AEZ/GIS system use and applications.
- Utilize the AEZ/GIS database for crop production, crop diversification and disaster preparedness programme planning.
- Strengthen efforts of the agricultural extension services to develop location specific technology packages through the establishment of an effective interface with the users.
- Incorporate Socio-economic parameters in the AEZ/GIS database; and
- Field Validation of the system's output and prepare optimal scenarios for land use planning at national, district and upazila levels.

The GIS project document (TAPP/ProDoc.) viewed socio-economic data in respect of technology generation/transfer and adoption by the users which would be limited and ineffective if farmers' Socio-economic situation was not considered and therefore the project made a provision of a local consultant (Socio-Economic Specialist) to perform among others.

i) prepare a format and database in the computer incorporating socio-economic factors, ii) develop a methodology for incorporating database in GIS environment and iii) run pilot tests in the field for the socio-economic parameters in conjunction with others developed for each land utilization types.

### **3. Joining of the present Socio-Economic Specialist in the GIS/BARC Project.**

Dr. Mujibur Rahman first joined in the project as Socio-Economic Specialist on 1-12-1997 and after working for 5 months left the project on 30<sup>th</sup> April 1998. After couple of months, Dr M.A Sattar Mandal joined the position on 09-08-1998 and after working for 16 months 23 days, Dr. Mandal left the job and was succeeded by the present Socio-Economist on 1<sup>st</sup> March 2000. So, there was no-continuance of working in this position and got interrupted twice for recruiting a new specialist every time.

### **4. Terms of Reference:**

The major duties and responsibilities as specified in the Employment Contract of the Socio-economic Specialist were as follows :

- Prepare data sets required for incorporation into the AEZ database and GIS including gender issue and FSR data.
- Coordinate ARMP/GIS Project for collection of socio-economic data of the AERS Division in collaboration with them.
- Collect socio-economic data, generate data for the country, check and refine them for multi-criteria model use
- Help integrate socio-economic factors with AEZ land suitability assessment models for GIS based land information system development
- Prepare data sets for Multi criteria Model Analysis (MCMA) and working in close cooperation with the expatriate MCMA/Socio-Economic Specialist
- Prepare training materials, manuals and conduct training courses for technology transfer/GIS application.
- Carryout sample ground truthing on land and land suitability assessment updated by incorporation of socio-economic parameters.
- Make travels in different parts of the country as and when required for field validation of data.
- Submit quarterly reports and end of assignment report to the NPD (National Project Director).

### **5. Major Tasks Completed by the Socio-Economic Specialists :**

- The incumbent Socio-Economic Specialist (SES) joined the GIS Project on 1<sup>st</sup> March, 2000, firstly for a period of six months from March to August 2000. The appointment has been extended for another period of six months from



September 2000 to February 2001 with subsequent extension for a period of 2 months (March 2000-April 2001) covering a total period of 14 months.

- The first SES (Dr. Mujibur Rahman) after having briefing about the GIS Project requirements from the NPD, colleagues and perusal of project documents (in terms of socio-economic parameters) came to the conclusion that the socio-economic data need to be necessarily upazila based and must encompass those influence (favourably or unfavourably) the farmers production decision. Location specific forecast would require micro level data which were not however available in a single or several documents (Monthly Report of Activities of December 1997 by Dr. Mujibur Rahman).
- The first SES tentatively selected some socio-economic parameters, information on which to be collected were land area, cropped area, farm population (male and female), no. of households, no. of farm households, no. of farmers by category of farms (small, marginal or large). Cost and return, input profile and inventory of seeds, fertilizers, irrigation water, credit, marketing and storage facilities, transport and communication facilities, agro-processing facilities price fluctuation and other socio economic constraints affecting adoption of new technology.
- The first SES wrote a note on the methodology of incorporating the socio-economic data. The SES stressed the need for collecting upazila based data specially by using the data of Agricultural Census Report of 1996. He also suggested several sources of secondary data at national level other than the BBS.
- Dr. Mujibur Rahman prepared an working paper entitled "Incorporation of Socio-Economic Factors in the AEZ/GIS Database having Influence on Agricultural Production and Adaptation of Modern Technology in Farming" wherein he delineated some of relevant socio-economic parameters and provide the rationale/justifications for their incorporation into the GIS indicating the main data sources, the probable constraints in the collection of data and their collection methods'. After 5 months of joining Dr. Rahman resigned from the job (position remained vacant until 8th August, 1998 in the process of filling the position by a new SES).
- Dr. M.A. Sattar Mandal joined as SES on 9<sup>th</sup> August, 1998 and served until 31 December, 1999 (served 16 months 23 days) and then left the job.

**Dr. Mandal completed the following tasks :**

- i) Prepared several lecture notes in connection with GIS training programs.
- ii) Convened meeting (Expert Consultation Meeting) to discuss about identification of important Socio-Economic Parameters that should be included for incorporation into GIS database to be prepared. Decided proposed socio-economic database at Upazila level.
- iii) Developed contact research proposal (under ARMP funding) for collection of socio-economic data for the GIS project. Assigned four Teams the task of data collection from 200 upazilas of Bangladesh. ARMP allocated Tk. 37 lacs for 4 teams.



- iv) Designed draft questionnaire for socio-economic data collection and an Input-output data collection format.
- v) Collected data on landuse information, farm holding types, crop production and inputs uses Thana-wise for Tangail district (in connection with fitting MCMA model). Lecture Notes prepared in connection with GIS Training Programs :

## 6. Major Tasks performed by the present SES

I joined the GIS Project on 1<sup>st</sup> March 2000 as SES (January-February months elapsed in the process of filling the position) and performed for remaining 14 man-months for the Socio-Economist position. The major jobs performed as per work-plans are highlighted below (detailed out in the quarterly reports) :

### A. First quarterly (March 2000 & April to June 2000) jobs performed (workplan attached to the Quarterly Report)

- \* Have acquainted with the relevant project documents and perused papers of the previous SESs.
- \* Finalised the questionnaire for Socio-economic data collection and the schedule for Cost and Return data of important crops grown in each Upazila.
- \* Prepared a brief paper on "Aspects of Land Degradation and its Socio-Economic Consequences" based on GIS information.
- \* Reviewed the status of the Upazila level data collected from Tangail district (data collected by the previous SES) in connection with filling MCMA Model. gathered and prepared some additional data sets relevant to MCMA validation. Also prepared input-output data sets from survey questionnaire and provided socio-economic inputs to the Expatriate socio-economic consultant (see Expatriate Consultant's Report).
- \* Participated in training program on application of GIS in Agricultural planning as a trainer on the topics
  - i) The logic and rationale for incorporation of socio-economic data in the AEZ/GIS System
  - ii) The identification and determination of socio-economic data for GIS with sources. (The outlines appended with the quarterly Report)

### B. Second quarterly (July to September 2000) jobs performed (workplan is available in the quarterly report) :

- \* Kept close liaison with PIs of the ARMP project (for GIS socio-economic data collection) in terms of monitoring progress, discussing the problems faced in data collection and provided advices to overcome data collection problems.

Attended a joint meeting of the PIs at Bangladesh Agricultural University at Mymensingh on 22-23 June, 2000.

- \* Prepared policy papers at the direction of NPD entitled, i) Technology Adoption and Transfer in Bangladesh Agriculture : Some Socio Economic



Aspects". ii) Proposed Interventions for Economically vulnerable Areas of Northern Bangladesh (attached to the Quarterly Report)

- \* At the behest of Chairman, BARC prepared, i) A Socio Economic Tabular Profile for Madaripur district showing demographic situation, farm population, livestock and fishery resources of the district", ii) A conceptual paper entitled, "Optimising Conditions for Resource use in Farm Production Activities." iii) A note on data sets relating to change in rural land use, change in cropped area, rice area and production according to seasons and extent of damages by floods in 1998/99.
- \* Collected the number of fertiliser dealers according to district and upazilas in Bangladesh during 1999-2000 and month-wise allotment of urea fertilizer from July 2000 to June 2001 (see Quarterly Report).

**C. Major tasks performed during 3<sup>rd</sup> Quarter (October to December 2000) (Work-plan is available in the Quarterly Report) :**

Several field visits (also accompanied by the NPD) were made for checking /verifying filled-in questionnaires collected by ARMP/GIS projects. Upazilas covered during validation field visits were Manikgong, Satoria, Bhaluka, Trishal, Mymensingh Sadar, Muktagacha, Guripur, Daundkandi, Chandina and Comilla Sadar.

Data inconsistencies and inaccuracies were detected in the questionnaires and reported to the respective PIs through AERS Division for corrections and taking pre-cautions before filling in new questionnaires. To apprise the experiences of the field visits, meetings also were held with the PIs.

- \* Prepared a detailed Report on "Impact of Vulnerability in Agriculture According to Agro-ecological Zones and Policy Options: What GIS Can do?"
- \* Prepared a Summary Table based on the above entitled, "Vulnerabilities by Agroecological Zones and Needed Technologies Mitigating Vulnerabilities "(Vulnerabilities indicated are based on GIS biophysical data and mapping). This was sent to DG, DAE for comments before finalisation. DG's comments and our response are attached (Appendix-A).
- \* Reports were prepared giving specific comments related to the validity and reliability of the collected data through ARMP for GIS Socio-economic data. First of such series reports was :

Some observations on the Upazila level Socio-economic data collected through ARMP for GIS Project (by BRRI Team).

- \* Prepared some data sets on Rice Area, production by seasons in Bangladesh for project Management.

**D. Major tasks performed During 4<sup>th</sup> Quarter (January-March 2001 and April 2001) :**

- \* Participated in a Two-week Training on AEZ/GIS Database Management and its Application in Agriculture as Trainer. Lecture topics were :
  - i) Socio-economic Factors in Agricultural production system ii) Socio-economic Database at BARC-GIS (data stock indicated and the importance of data items discussed).



- ii) Participated meetings (convened by the NPD) with the PIs of the ARMP/GIS project to discuss Report prepared by the SES on data discrepancies and large divergences of the collected Upazila information. The SES indicated specific interventions and areas where corrections needed (see ToR, p.4)
- \* In assessing data reliability and validity (of the partially received data sets of 100 Upazilas out of 200 Upazilas in March 2000 from the ARMP/GIS Socio-economic Project' see the List of Upazilas (Appendix-B) of the received data sets, following review Reports were prepared by the SES and circulated to Member Director (AERS Division), National Project Director, PIs of the ARMP/GIS projects for taking necessary actions on the part of each. The data assessing reports were :
    - i) "Analysis of Trends of Socio-Economic Changes in selected Upazilas of Bangladesh using ARMP/GIS data".
    - ii) "Changes in Land use pattern in Bangladesh by Upazila between two Agricultural Census period."
    - iii) " Changes in Land use pattern and Share of Individual Crop to total cropped area with Reference to Important Crops in Bangladesh" (these papers are annexed to the Quarterly Report) and were done as an exercise for validation tests of collected data.

In these analytical papers, extreme values, suspected information, inaccuracies and mendacious entries were identified relating to findings of other micro-studies, national/district averages quoted by the BBS and studies by other NARS and Research Institutes.

- \* Complete data sets for 200 Upazilas was received by the GIS project on 29<sup>th</sup> April, 2001, initially which were supposed to be received by December 2000
- \* In the process of assessing validity and reliability-two reports were prepared on the basis of available data sets in April. Data discrepancies in terms of individual area to total cropped area and yield were identified in the paper. These were :
  - i) Share of Minor Crops to Total Cropped Area and Yield per hectare at Upazila Level. (Article appended-Appendix-C)
  - ii) A Glimpse on Benefit Cost Ratios of Selected Crops in 1998/99 Growing in Different Upazilas (Appendix D).
  - iii) Tables on Yield of Important Major and Minor Crops were prepared (Appendix-E)
- \* Data readability, entry conformity, consistency among four data collecting Teams were verified with the help of System-Analyst of the GIS Project during the month of April. (see also the proceeding of the last review meeting with the PIs- Appendix-F).
- \* From the input output data sets of the 200 Upazilas, coefficients were used to estimate returns relative to costs (expressed in B/C ratios of each crop. Total costs of all inputs used (inputs wise) for crop productions were derived upazila wise and can be used in future for estimating linear input demand function for a crop to be used in any upazila wise MCMA exercise for land



use planning with other components of MCMA model fitting (see ToR). Relevant socio-economic data are available now available in the GIS Project of BARC (200 upazilas) which can be used in Mult-Criteria Model Analysis, but before that in several instance data cleansing, revisions should have to be completed by the data collection Teams (ARMP/GIS Project) as were pinpointed by the SES in different application-paper outputs. However, thorough investigation of pieces of many information items (e.g. livestock population, upazila infrastructures etc.) could not be made due to late submission of data sets.

- \* Participated in occasional meetings convened by the NPD in assessing progress of work time to time (16 such meetings).

## 7. Some Problems in Conceptualization, Acquiring and Integration of Socio-economic Data sets in GIS Environment

- \* Recruitment of Socio-Economic Specialist (involving three Specialists) interrupted conceptualization of the process of data identification, instrumentalities in the collection of data, smooth and continuous progress of work.
- \* Although primary data collection is not the purpose/basis of this project development, however, it was felt that, in the project Document (TAPP) resources allocation for the socio-economic component should have been more initially covering field data collection expenses. Socio-economic data collection through survey method from diverse areas is a huge task requiring sufficient fund allocation.
- \* Data collected through ARMP/GIS Socio-Project activities, were delivered to the GIS project very lately, (3<sup>rd</sup> week of April 2001 reasons could be so many for the assigned teams) by the collecting Teams just prior to end of the last SES's job period. Even NPDs earnest endeavour to effect timely submission of the data-sets by the collecting Teams was of no avail. One of the reasons for this could be control and supervision of Teams vested (AERS Division) elsewhere other than the GIS. Further designing of any such project should take into consideration these points to avoid a feeling of alienation by the recruited professionals and for receiving prompt/more efficient services.

## 8. Recommendations for Improvement of the Data Management and Use.

- \* Availability of Socio-economic Data by the Upazilas at national level should be considered utmost important for bottom-up agricultural development planning, for efficient uses of resources and analyzing growth trends. The list of Upazilas for which data are available is provided in Appendix-B.
- \* Out of 486 Upazilas, data are only available for 200 Upazilas which though representative of different Agro-Ecological Zones but must be completed for wholesome view of the country. As a public property, user may demand any numbers of Upazilas, from anywhere in the country, so the data sets must be whole some completed for all the Upazilas and also having a segregated/view of the country whenever needed.

- \* Socio-economic parameters are always changing as the society progresses. Therefore, the concept of data is not anything of a static view. Data must be upgraded to keep them relevant and useful. Adequate fund provisions should be there to make the relevant data sets upto-date. There should be provisions for service charges from the users at least to cover-up operational expenses and efficient uses of resources.
- \* Digitized mapping with important Socio-economic attributes (say, the extent of landlessness by upazila, land tenancy map, intensity of livestock population etc.) should be done with the data sets received as has been done with the bio-physical data. This maps could be very useful for first-hand quick visual viewing of an upazila socio-economic characteristics. .
- \* All deviations, extreme values, suspect figures as pointed out by the last SES while reviewing data accuracies and validity must be ensured that have been corrected/revised accordingly for reliable use of data sets.



## Comments of DAE on the Paper "Vulnerability in Agriculture : Development opportunities and policy Options".

No doubt a laborious, time-consuming and brain-storming effort was made by the concerned scientists in compilation and edition of facts and findings on AEZ based. "Vulnerability in Agriculture : Development opportunities and policy Options". Vulnerabilities of the AEZs have been identified as socio-economic and Bio-physical constraints. Bio-physical constraints in location specific areas and in general are identified usually as:

### 1. Edaphic

- (a) Degrading soil fertility
- (b) Erosion
- (c) Sedimentation
- (d) Nutrient imbalance
- (e) Salinity-both natural and man made
- (f) Water holding capacity of soils.

### 2. Agro-climatic

- (a) Flood prone areas
- (b) Drought prone areas
- (c) Low rainfall areas
- (d) Low land areas
- (e) Stagnation
- (f) Poor drainage in location specific areas

### 3. Weak technological Interventions.

- (a) Cropping patterns
- (b) Variety, short duration, drought resistant etc suitable to local needs.
- (c) Biotechnologies like IPM, Organic manuring, seed production & storage, etc.

### 4. Agro-processing and Marketing

- (a) Identification and promotion of production of demand driven fruits, vegetables and other crops for domestic and foreign markets.
- (b) Technological and logistical support for processing, canning and marketing.

### 5. Technologies promoting Organic farming and Farmers' Innovations.

- (a) Technologies for organic farming of crops, specially fruits and Vegetables.
- (b) Identification and promotion of farmers' innovations.
- (c) Development of low cost technologies.

One or more than one of the problems does/do exist in location specific areas of each AEZ. The report also shows that such problems have been identified in many cases. But what we strongly feel, are lackings of specific, appropriate and updated recommendations to adress the problems. Rather the measures and recommendations made are general, indicative, suggestive and long time policy driven. We think that, instead of prescribing a long list of remedial measures for each AEZ, a few action oriented recommendations to create break through, will be more useful.



Response to Comments of Director General on the GIS Report, “Vulnerabilities in  
Agriculture: Development Opportunities and Policy Options”.

- ✧ The categorical and thoughtful comments of DG on the report are acknowledged thankfully (copy of comments appended)
- ✧ A wide range of bio-physical vulnerabilities and socio-economic constraints are indicated in the report according to agro-ecological zones.
- ✧ ‘A long list of remedial measures’ (2 to 4 specific remedial suggestions were made for each AEZ, case) for each AEZ appears, because sometimes, some of the problems do overlap between contiguous zones and therefore suggestions often repeated for each AEZ which influenced making list ‘long’ (not exceeding 4 recommendations).
- ✧ Bio-physical and socio-economic constraints have multi-pronged dimensions and effects and need to be tackled in several plausible ways. At each upazila, development and implementing agencies are many. If every one can have a role in ameliorating Vulnerabilities – a very limited or single suggestive measure may not suit all or create opportunity for all to work.
- ✧ Socio-economic constraints are diverse and very often need a longer course of actions to have ameliorating effects because these involve humans who require longer time to be changed.
- ✧ For a few action oriented recommendations having break-through impact also often would require (say introduction of hybrid rice for high production return) time consuming intensive institutional research for development and adaptability.
- ✧ Development institutions may choose suitable suggestions (one or two from the list) to emphasize intensive work within their reach.

GIS Project at BARC.

**SOCIO-ECONOMIC DATA COLLECTION**  
**THANA LIST : BAU Team-1**

Sl. No.	District Name	Thana Name	Thana Code
1	Mymensingh	Sadar, Gouripur, Haluaghat	36152, 36123, 36124
2	Jamalpur	Sadar, Sharisabari, Islampur, Melandah	33936, 33985, 33929, 33961
3	Sherpur	Sadar, Jhenaigati	38988, 38937
4	Kishoreganj	Hossainpur, Austagram	34827, 34802
5	Chandpur	Sadar, Matlab, Shahrajti	21322, 21376, 21395
6	Feni	Chhagalnaya	23014
7	Noakhali	Hatia, Senbag	27536, 27580
8	Laxmipur	Sadar	25143
9	Faridpur	Sadar, Boalmari, Sadarpur	32947, 32918, 32984
10	Sariatpur	Naria, Palong	38665, 38669
11	Gopalganj	Mukshedpur	33558
12	Magura	Sadar, Shalika	45557, 45585
13	Chuadanga	Sadar, Alamdanga	41823, 41807
14	Meherpur	Gangni	45747
15	Bogra	Sadar, Gabtali	51020, 51040
16	Munshiganj	Srinagar	35984
17	Norshingdi	Raipura	36864
18	Pirojpur	Sadar, Sharupkati	17980, 17987
19	Barguna	Sadar, Patharghata	10428, 10485
20	Joypurhat	Sadar	53847
21	Sunamganj	Sadar, Bishwambarpur, Jaganathpur	69089, 69018, 69047
22	Khagrachhari	Sadar	24649
23	Satkhira	Sadar, Debhata	48782, 48725
24	Rangamati	Kaptai, Rajasthali	28436, 28478
25	Cox's Bazar	Chokoria	22216
26	Chittagong	Anowara, Hathazari, Patia, Rangunia	21504, 21537, 21561, 21570

Total = 51

Kasir

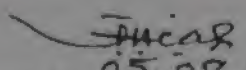
5/8/2000



Bureau of Socioeconomic Research and Training  
Bangladesh Agricultural University, Mymensingh  
Coordinated Project on Generation of GIS-based Socioeconomic Data

**Work Schedule for Data Collection in the Selected Thanas of the BAU Team-II**

Time schedule	Name of districts	Total thanas	Name of thanas
	1. Mymensingh	03	1. Bhaluka, 2. Muktagachha, 3. Trishal
	2. Tangail	11	1. Basail, 2. Tangail, 3. Delduar, 4. Mirzapur, 5. Sakhipur, 6. Nagarpur, 7. Bhuapur, 8. Ghatail, 9. Gopalpur, 10. Kalihati, 11. Madhupur
	3. Sherpur	01	1. Nakla
	4. Kishoreganj	02	1. Sadar, 2. Karimganj
	5. Dhaka	01	1. Savar
	6. Rajbari	02	1. Baliakandi, 2. Gualanda
	7. Magura	01	1. Mohammadpur
	8. Chuadanga	02	1. Damurhuda, 2. Jibannagar
	9. Meherpur	01	1. Sadar
	10. Narail	01	1. Lohagara
	11. Satkhira	01	1. Kalaroa
	12. Madaripur	02	1. Sadar, 2. Rajoir
	13. Patuakhali	03	1. Sadar, 2. Kalapara, 3. Bauphal
	14. Barguna	01	1. Amtali
	15. Bogra	03	1. Nandigram, 2. Shariakandi, 3. Shibganj
	16. Joypurhat	02	1. Kalai, 2. Panchbibi
	17. Munshiganj	01	1. Sadar
	18. Narshingdi	02	1. Monohardi, 2. Sibpur
	19. Narayanganj	01	1. Sonargaon
	20. Chandpur	01	1. Shahrasti
	21. Feni	02	1. Sadar, 2. Parshuram
	22. Laxmipur	02	1. Raipur, 2. Rangati
	23. Noakhali	01	1. Begumganj
	24. Chittagong	01	1. Sitakunda
	25. Cox's Bazar	01	1. Kutubdia
	26. Bandarban	01	1. Sadar
	27. Rangamati	01	1. Sadar
Total	27 districts	51 thanas	-

  
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SOCIO-ECONOMIC DATA COLLECTION (THANA LIST) FOR GIS PROJECT.  
AGRI. ECONOMICS DIVISION  
BRRI, GAZIPUR -1701

SL. No	DISTRICT NAME	THANA NAME
1	BARISHAL	Agailjhara ✓
2	BARISHAL	Barisal ✓
3	BARISHAL	Gournadi
4	BARISHAL	Mehendiganj
5	BHOLA	Bhola
6	BHOLA	Borhanuddin
7	COX'S BAZAR	Cox's Bazar
8	DHAKA	Keranigonj *
9	DINAJPUR	Biral
10	DINAJPUR	Bochagonj
11	DINAJPUR	Chiribander
12	DINAJPUR	Dinajpur
13	DINAJPUR	Kaharol
14	GAIBANDHA	Gaibandha
15	GAIBANDHA	Gobindaganj
16	GAIBANDHA	Palashbari
17	HABIGONJ	Baniachong
18	HABIGONJ	Habigonj
19	HABIGONJ	Madhabpur
20	KURIGRAM	Nageshwari
21	KURIGRAM	Rajibpur ( Dhusmara )
22	LALMANIRHAT	Aditmari
23	LALMANIRHAT	Kaliganj
24	LALMANIRHAT	Lalmanirhat
25	MANIKGANJ	Dautlatpur
26	MANIKGANJ	Manikganj
27	MANIKGANJ	Saturia
28	MANIKGANJ	Singair
29	MOULAVIBAZAR	Rajnagar
30	NAOGAON	Manda
31	NAOGAON	Naogaon
32	NAOGAON	Porsha
33	NATORE	Natore
34	NILPHAMARI	Kishorigonj
35	NILPHAMARI	Saidpur
36	PANCHAGARH	Atwari
37	PANCHAGARH	Boda
38	PANCHAGARH	Dedigonj
39	RAJSHAH	Charghat
40	RAJSHAH	Godagari
41	RAJSHAH	Mohanpur
42	RANGPUR	Mithrapukur
43	RANGPUR	Pirgachha
44	RANGPUR	Rangpur
45	SYLHET	Balagonj
46	SYLHET	Bishawnath
47	THAKURGAON	Balindangi
48	THAKURGAON	Hatipur
49	THAKURGAON	Ranisonkali ✓
50	THAKURGAON	Thakurgaon ✓

Total = 50

Principal Investigator  
GIS Project  
BRRI, Gazipur-1701



# List of Thana and Work in Progress/CDPR

Sl. No.	District	Thana	Code	Completed	Expected Date of Completion	Remarks
1	BAGERHAAT	Bagerhat ✓	40108		Oct. 15, '00	
2	BAGERHAAT	Moulhatt ✓	40156		"	
3	BAGERHAAT	Rangpur	40173		"	
4	BAGERHAAT	Satarkhola	40177		"	
5	BRAHMANBARIA	Akhaura	21202	✓	"	
6	BRAHMANBARIA	Arduamabur	21213	✓		
7	BRAHMANBARIA	Kashiba	21263	✓		
8	BRAHMANBARIA	Nasirganj	21290	✓		
9	BRAHMANBARIA	Shanail	21291	✓		
10	CHAPAINAWABGANJ	Nachol	57056	✓		
11	CHAPAINAWABGANJ	Nawalganj	57066	✓		
12	CHAPAINAWABGANJ	Shibganj	57088	✓		
13	COXBILLA	Daura	21909	✓		
14	COXBILLA	Chandina	21927	✓		
15	COXBILLA	Comilla	21967	✓		
16	COXBILLA	Dumukandi	21936	✓		
17	COXBILLA	Muradnagar	21981	✓		
18	COX'S BAZAR	Ramu	22266	✓		
19	JESSORE	Rangherpur	41109		Aug. 15, '00	
20	JESSORE	Jessore	41137	✓		
21	JESSORE	Keshabpur	41133	✓		
22	JHALAKATHI	Jhalakathi	44240	✓		Except bank data
23	JHALAKATHI	Kamarkhata	44243	✓		
24	JHENAIHATA	Jhenaidah	44111		Aug. 15, '00	
25	JHENAIHATA	Jhenaidah	44119		"	
26	JHENAIHATA	Maheshpur	44171		"	
27	KHULNA	Burigachha	44712		Oct. 15, '00	
28	KHULNA	Dumuria	44730	✓		Except bank data
29	KHULNA	Paikgachha	44764	✓	"	
30	KHULNA	Terekhata	44794		Oct. 15, '00	
31	KUSHTIA	Bheramara	45015		Sep. 15, '00	
32	KUSHTIA	Daulatpur	45039		"	
33	KUSHTIA	Kushia ✓	45079		"	
34	KUSHTIA	Mirpur	45094		"	
35	MOULVIBAZAR	Kamalganj ✓	65856		Aug. 31, '00	
36	MOULVIBAZAR	Moulvibazar ✓	65874		"	
37	NETRAKONA	Burhatta	37209		Sep. 30, '00	
38	NETRAKONA	Durgam	37218		"	
39	NETRAKONA	Kendua	37217		"	
40	NETRAKONA	Purbadipda	37283		"	
41	PABNA	Hera	57616		Aug. 31, '00	
42	PABNA	Idharanail	57639		"	
43	PABNA	Smithia	57672		"	
44	PABNA	Sujanagar	57683		"	
45	SIRADGANJ	Belkuchi	58811		"	
46	SIRADGANJ	Kazipur	58850		"	
47	SIRADGANJ	Shubazpur	58867		"	
48	SIRADGANJ	Ullapara	58921		"	
49	SYLHET	Galopganj	69128		Oct. 15, '00	
50	SYLHET	Zakiganj ✓	69191		"	

\* Completed except the data relating to Agricultural Census 1996 conducted by DUS.

Total = 50



## Share of Minor Crops to Total Cropped Area and Yield per hectare at Upazila Level

Dr. Shamsul Alam  
Socio-Economic Specialist  
GIS Project at BARC

Area and yield data of the crops grown at Upazila level have been reported for consecutive three years as 1996/97, 1997/98 and 1998/99. During the first phase data have been received for 100 Upazilas from the four data collecting Teams out of 200 to be finally submitted. Area and yield discrepancies as observed between Teams and abnormal divergences with the national average and between years have been reported earlier for the major cereal crops, crops, fibre, vegetables and fruits. This time, data on area and yield of major pulses, oil crops, sweet potato, tobacco and maize have been discussed. Some more crops could not be covered as data were not received from some of the Teams for some crops. The aim of this report is to assess data variations between years/between Teams and deviations from the national average to identify extreme variations that may lead to suspect validity of the figures. Eight important minor crops have been under investigation for this report.

### 1. Area and Yield of Kheshari

Among pulses Kheshari coverage in terms of area is the highest (covered 1.66% of total cropped area in Bangladesh in 1996/97 followed by lentil 1.50%). Yield per hectare in 1996/97 has been 0.78 tonne.

Team Findings at Upazila level (all relevant Tables Team-wise are annexed at the end of this write-up are reported.

#### a) BAU Team-1

Data not provided for two Upazilas viz., Bogra Sadar and Gabtali. Naria and Sadarpur has been reported as the highest Kheshari growing areas (covering 6.47% and 6.97% of area in 1998/99 respectively. Yield level for Matlab has been shown quite high (2.80 tonne/ha in 1997) but in the following year the yield was only 0.77 (near at national level) tonne which makes earlier figure doubtful. Can yield be fallen so much being a dry season crop?

#### b) BAU Team-2

Data not provided for 6 Upazilas. Gualando and Mohammadpur were the highest Kheshari growing areas (3.92% and 3.73% area covered) reported by this Team. In most Upazilas yield levels were higher (more than 1 tonne) than the national average.

#### c) BRRI Team

Data were not provided for 5 Upazilas. The highest Kheshari growing Upazila was Bhola (covered area 5.10%, 6.15% and 6.24% respectively for the years 1996/97, 1997/98 and 1998/99) followed by Barisal (4.65% in 1998/99). Yield level of the Upazilas hover around the national level.

#### d) DU Team

Data were not provided for 2 Upazilas. Bera and Ishawardi were the two most Kheshari growing areas (6.26% and 5.07% area covered in 1998/99). Mollahat yield level of 3 tonne, 2.9



tonne and 3.1 tonne in the three reference years (1997, 1998 and 1999) seem too high considering the national yield level (and yield level reported by other Teams).

The highest Kheshari growing Upazilas were Sadarpur, Naria, Bhola, Bera and Barisal Sadar (of the 100 Upazilas reported by 4 Teams).

## 2. Area and Yield of Chickpea

Chickpea (gram) area covered 0.61% of the total cropped area nationally in 1996/97 and the yield per hectare was 0.73 tonne (lower than Kheshari).

### a) BAU Team 1

Data were not provided for 11 Upazilas. For some Upazilas, data were not available for all the three years. As of this Team, the highest chickpea growing Upazila was Boalmari (area covered was 1.34%). Yield level of 2.50 tonne per hectare at Matlab in 1996/97 seem quite high considering the national yield level.

### b) BAU Team 2

Data were not provided for 13 Upazilas. The highest chickpea growing area reported by this Team was Sadar (Sadarpur?) covering 1.44% area in 1998/99. How could be yield level 49.28 tonne for Sadar in 1998/99 (see the national average).

### c) BRRI Team

Data were not provided for 4 Upazilas. The highest chickpea growing Upazila was Godabari (covered 4.45% area in 1998/99 followed by Barisal (1.09% area). Yield more than 2 tonnes for Kaharol seem high figure considering the national average and yield of other Upazilas.

### d) DU Team

No information were provided for 11 Upazilas. Kushtia Sadarpur is appeared as the highest Chickpea growing area (covered 4.30% of cropped area) followed by Shibgonj (1.58% area covered in 1998/99). Yield reported was in kg which should be in tonnage for uniformity with other Teams.

The highest Chickpea growing Upazilas were Godabari, Sadar, Shibgonj and Boalmari.

## 3. Area and Yield of Sesame

Sesame area as percentage of total cropped area covered 0.58% in 1996/97 nationally. Yield of sesame per hectare was 0.61 tonne in 1996/97.

### a) BAU Team 1

Data were not provided for 11 Upazilas. For the reported Upazilas, area coverage was less than 1 per cent in every Upazila except Hatia wherein sesame covered 17% of the cropped area in 1998/99 and 19.97% in 1997/98 and 7.16% in 1996/97. So high percentage of coverage by a single oil crop needs re-confirmation for validity. Hatia area figures remain as a big surmise. Yield per hectare surpassed 1 tonne in 8 Upazilas out of reported 14 Upazilas in

1998/99. Yield more than 2 tonnes (Chhagalnaiya) appeared high considering the national average. No other Team also reported so high yield level.

**b) BAU Team 2**

No data were reported for 16 Upazilas. Of the reported Upazilas, in only Baliakandi, sesame area covered more than 1 per cent (1.26%). Yield of sesame per hectare has been 1.25 tonne in 1999 (less than 1 tonne in other reported Upazilas).

**c) BRRI Team**

No data were reported for 13 Upazilas. Of the reported Upazilas, Atwari and Rajibpur covered 1.06 and 1.41 per cent of cropped area under sesame crop (rest of the Upazilas are less than 1 per cent) in 1999. Four Upazilas out of 12, produced more than 1 tonne per hectare in 1999.

**d) DU Team**

No data were provided for 13 Upazilas. Of the reported Upazilas, Batiaghata and Santhia Upazilas covered 2.69 and 2.77 per cent of cropped area under sesame in 1999. Dumuria exhibited highest yield level of 1.6 tonne in 1999 and the lowest has been 0.39 tonne. The range of yield variation has been 0.42 tonne to 1.7 tonne in 1998 (the range has been of almost same magnitude in 1997).

The highest sesame producing Upazilas were Santhia, Batiaghata, Rajibpur and Atwari (Hatia figure is doubtful, so have not mentioned here).

**4. Area and Yield of Blackgram**

Blackgram (Mashkalai) area was 0.47% of total cropped area in Bangladesh in 1996/97. Yield level per hectare was 0.78 tonne.

**a) BAU Team 1**

Data were not reported for 8 Upazilas. Most percentage of cropped area figure were below national average in all the three reference years. Upazilas exceeding 1 per cent of cropped area (under the crop) were Islampur (1.09%), Mymensingh Sadar (2.03) and Sadarpur (6.52%). Sadarpur figure seems very high for a single crop in any year (preceding two years figures were less than 2%). Yield figures were less than 2%. Yield figures of Matlab (3.45 tonne and 3.10 tonne) seem abruptly high (in comparison to national average and other Upazila figures).

**b) BAU Team 2**

Data were not provided for 12 Upazilas. Gualanda Upazila exhibited 4.02% of cropped area under blackgram (for many crops, Gualando figures on area coverage exhibited high magnitudes) in 1999. Other two major blackgram growing Upazilas (in terms of area coverage) were Sadarpur (1.22%) and Shakhipur (1.45%). Upazila yield level figures were less than 1 tonne in 1999. The highest yield level was for Kalihati Upazila (1.14 tonne) in 1998. Gualando figures should be checked and corrected.



c) **BRRI Team**

Information were not provided for 9 Upazilas. The highest blackgram growing Upazila was Godabari (percentage of cropped area was 3.2%, 3.57% and 2.94% for the years 1997, 1998 and 1999 respectively). The highest yield level was observed for Kaligonj though unusually falling (2.70, 1.50 and 1 tonne in three consecutive years).

d) **DU Team**

Data were not provided for 9 Upazilas. In 1999, 8.61 per cent of the total cropped area was under blackgram in Nawabgonj Upazila and appeared too high for a single less important crops. The next blackgram growing Upazila was Bera (3.67% of cropped area). Yield more than 2 tonnes for Santhia Upazila was on very high side considering the national average and other Upazila yield figures.

5. **Area and Yield of Mungbean**

Mungbean area covers 0.40% of total cropped area of the country. Average yield per hectare was 0.62 tonne in 1996/97.

a) **BAU Team 1**

No information were provided for 5 Upazilas (Bogra Sadar, Hatia, Jagannathpur, Joypurhat Sadar and Patharghata). Percentage of area under the crop was less than 1 for all the reported Upazilas in all the three years. Yield level for Hossainpur Upazila for both 1997 and 1998 was unusually high e.g., 6.50 tonne and 6.80 tonne/ha in 1997 and 1998 respectively. For the same Upazila, mungbean yield was 0.68 tonne in 1997. Therefore the earlier two yield figures would be considered as reasonably inaccurate. The same thing could also be said for Matlab yield figures (3.10 and 3.48 tonne in 1997 and 1998 respectively).

b) **BAU Team 2**

No information were provided for 8 Upazilas (Barisal, Delduar, Gopalpur, Kalihati, Karimgonj, Mirzapore, Muktagacha Sadar). Area covered by Bhuapur was 3.01, 2.39 and 2.39 per cent of the total cropped area in 1997, 1998 and 1999 respectively. Bhuapur appears as high mungbean growing area but why other neighbouring Upazilas are not growing the crop at all? 1998 yield of mungbean for Bhuapur was 7.51 tonne/ha which is difficult to be taken as accurate figure considering the national average and other Upazila figures (see the national yield figure).

c) **BRRI Team**

Data were not provided for 6 Upazilas (Baniachong, Bishwanath, Kaharol, Mohanpur, Porsha and Rajibpur). The highest mungbean growing Upazila was Bhola. This Upazila covered 3.96, 3.85 and 2.54 per cent of cropped area in 1997, 1998 and 1999 respectively (Bera, Sujanagar and Bhola were three Upazilas covering the highest level of area in percentage term with Bera topped the list). Agailjhara yield of 793 tonne per hectare in 1997 is simply absurd and needs to be corrected.

d) **DU Team**

Information were not provided for 8 Upazilas. Bera reported by this Team was the Upazila covering the highest percentage of area (7.45, 7.52 and 7.19 per cent of area in 1997, 1998 and 1999 respectively). This reported yield in kg ranging from 0.62 tonne to 1.78 tonne in 1999 and 0.63 tonne to 2.0 tonne in 1998.

6. **Area and Yield of Sweet Potato :**

Sweet potato area as percentage of total cropped area in Bangladesh was 0.31 in 1996/97 with yield level of 9.39 tonne per hectare.



a) **BAU Team 1**

Area under sweet potato exceeded 1 per cent of total cropped area for the Upazilas of Austagram, Islampur, and Naria during all the three years data were referred to. Bhola and Bhuapur (reported by BAU Team-2) were other two Upazilas covering highest-sweet potato area (2.38% and 2.43% area covered respectively). Yield level exceeded more than 5 times than the national average for Matlab Upazila (48 tonne) and for Patharghata (45 tonne) in 1998. So high figures need rechecking. All yield figures exceeded the national yield figure for all the Upazilas except in 1996/97, 1 Upazila in 1997/88 and 1 in 1998/99. Data were not provided for 3 Upazilas.

b) **BAU Team 2**

Data were not provided for 6 Upazilas. Area covered was less than 1 per cent for all the reported Upazilas except Bhuapur (2.43%) and Ramgati (1.10%) in 1999. Area under this crop was less than 1 per cent for all the Upazilas except Bhuapur in preceding two years. No extreme value for yield data was reported.

c) **BRRI Team**

No data were provided for Mohanpur Upazila. Of the reported Upazilas, 3 Upazilas exceeded 1 per cent of cropped area under this crop (Bhola, Borhanudding and Mehendigonj) in 1999. No extreme value of yield level was reported. The yield range has been 3.26 tonne to 22 tonne in 1999 and exhibited almost similar magnitudes in preceding two years).

d) **DU Team**

Data were not provided for Nachol and Terakhada. Of the reported Upazilas, none exceeded 1 per cent of total cropped area under this crop during the reference years. No extreme values were reported of yield levels (5 tonne to 21 tonne in 1999). Yield per hectare reported was expressed in kgs which should be in tonnage. The highest sweet potato growing areas were Bhola, Bhuapur and Ramgati.

7. **Area and Yield of Groundnut**

Groundnut area as per cent of total cropped area was 0.25 in 1997/98. Yield per hectare was 0.46 tonne.

a) **BAU Team 1**

No information was provided for 6 Upazilas. Area figure for Sadarpur appeared quite high (7.33%, 6.70% and 9.33 % respectively for 1997, 1998 and 1999). All other area figures were less than 1 per cent except Islampur (1.75%) in 1999. Sadarpur figure should be checked. All yield figures were higher than national average in 1999 (more than 1 tonne in each Upazila). All yield figures were also higher (more than 1 tonne and in cases exceeding two tonnes) in 1998 except Matlab (almost similar is the situation in 1997).

b) **BAU Team 2**

No information was provided for 5 Upazilas. Area figure for Ramgati was exceptionally high (7.88%, 8.64% and 8.25% respectively in 1997, 1998 and 1999). All other area figure was less than 1 per cent except Bhuapur and Gualanda in 1999. Most yield figures were higher than the national average in all the three years.

c) **BRRI Team**

Data were not provided for 10 Upazilas. Major groundnut growing Upazilas (covering more than 1 percent of cropped area) were Agailjhara, Bhola, Daulatpur and Kaligonj as reported by the Team. Yield figures were consistently higher for all the Upazilas than the national average (in most



cases more than 1 tonne). All the Teams consistently reported higher yield level of groundnut than the national average. Does the national level reporting understates the actual yield figure? This is not impossible when before reaching to the national level, original figures got edited/cleaned at several regional/district levels giving subjectivity to the figures and this could more happen with minor and less important crops due to sheer negligence.

d) **DU Team**

No data were provided for 12 Upazilas. Bera Upazila appeared as the major groundnut growing Upazila covering more than 5% of the total cropped area. All other reported Upazilas had less than 1 per cent of the cropped area under groundnut. Yield figure of Santhia exceeding 3 tonnes for the reference year appeared unreasonable considering the yield level reported by other Teams and the national average. Yield figure should be in tonnage.

Major groundnut growing Upazilas were Sadarpur, Ramgati and Islampur.

8. **Area and Yield of Maize**

Maize area as percentage of total cropped area is 0.02% in 1996/97 in Bangladesh with yield per hectare of 1.01 tonne.

a) **BAU Team 1**

Information was available for 21 Upazilas out of 25 Upazilas investigated. BAU Team 2 provided information for 21 Upazilas. BRRI Team gathered data for 17 Upazilas and DU Team gathered information for 15 Upazilas. It appeared that cultivation of maize is quite spread all over Bangladesh as the Upazila-wise information revealed.

Area covered was less than 0.50% in each Upazila except Bogra Sadar in 1999 (covered 0.57%). Daulatpur topped the list among all Teams in covering maize area (1.49% of total cropped area in 1999) followed by Savar (1.35%). Yield of 6 tonne (1998) and 5.83 tonne in 1999 should be checked because this is 6 times higher than the national average.

b) **BAU Team 2**

Nowhere percentage of area covered exceeded 0.50 except Savar Upazila. Yield information for many Upazilas was not available for 1997 and 1998. Yield figure of 15.33 tonne in Shakhipur in 1999 cannot be taken as accurate. This figure must be corrected. Yield figures exceeding 5/6 tonnes should be checked for accuracy. What does yield figure of 48.29 tonne in 1998 mean? This is certainly an absurd figure.

c) **BRRI Team**

In Kaharol, Kaligonj and Godabari, maize coverage was more than 0.50% but less than 1%. Yield figure of 10 tonnes for Kaharol and Mohanpur having 6.67 tonne yield and such figures during the reference years need re-checking and corrected.

d) **DU Team**

Maize coverage for 17.52% of cropped area for Shibgonj in 1998 must be corrected because so high coverage may be impractical. Maize area coverage in 1997 was 0.99% and in 1999 0.59%. Yield of 49 tonne of Kushtia Sadar in 1998 could be considered absurd! Yield ranged between 0.74 tonne (Sujanagar) to 5.25 tonne (Shibgonj). Yield figures were reported in kgs (contrary to other Teams and should be in tonnage).

The Major maize growing Upazilas were Daulatpur, Savar and Shibgonj.

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PI, GIS Data Collection Project  
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(BAIL)

NCNAME										
Maize										
AR97	PCA97	YLD97	AR98	PCA98	YLD98	AR99	PCA99	YLD99		
ALAMDANGA	14	.03	3.45	14	.03	3.45	52	10	3.50	
AUSTAGRAM	13	.02	2.30	14	.02	1.78	50	.09	2.60	
BOALMARI	1	.00	1.50	5	.01	1.60	0	.00	1.70	
BOGRA SADAR	90	.17	5.00	254	.47	6.00	300	.57	5.83	
CHHAGALNAYA										
GABTALI	-99	-99.00	-99.00	-99	-99.00	-99.00	2	.01	3.50	
GOURIPUR	-99	-99.00	-99.00	1	.00	2.80	9	.03	2.25	
HATHAZARI	-99	-99.00	-99.00	-99	-99.00	-99.00	1	.01	4.00	
HATIA										
HOSSAINPUR	20	.11	4.00	10	.05	2.50	20	.10	4.50	
ISLAMPUR	-99	-99.00	-99.00	1	.00	2.00	10	.04	-99.00	
JAGANNATHPUR										
JAMALPUR SADAR	-99	-99.00	-99.00	16	.03	7.00	-99	-99.00	-99.00	
JOYPURHAT SADAR	5	.01	2.10	5	.01	1.92	4	.01	1.88	
LAXMIPUR SADAR	-99	-99.00	-99.00	-99	-99.00	-99.00	110	.19	3.00	
MATLAB	5	.01	2.63	5	.01	2.40	11	.02	2.61	
MYMENSINGH SADAR	3	.01	1.50	3	.01	1.75	15	.04	1.93	
NARIA	15	.06	3.20	10	.04	4.00	30	.12	4.30	
PATHARGHATA										
PATIA	2	.01	3.50	2	.01	3.50	2	.01	4.00	
PIRIJUPUR SADAR	1	.00	4.00	-99	-99.00	-99.00	-99	-99.00	-99.00	
SADARPUR	-99	-99.00	-99.00	-99	-99.00	-99.00	20	.09	1.25	
SHARISABARI	5	.03	2.50	-99	-99.00	-99.00	18	.03	1.82	
SHARUPKATI	1	.00	2.20	1	.00	3.50	15	.09	3.50	
SUNAMGONJ SADAR	11	.03	2.00	20	.05	2.00	23	.05	1.65	

Table : ?? : Croppped Area (Ha), Percentage of Total CA and Yeld of different croos by Upazila (Team-BAU2)

CODE VARIA									
Maize									
A97	P97	YLD97	A98	P98	YLD98	A99	P99	YLD99	
Baliakandi	5	4.50	2	.01	4.50	12	.04	4.50	
Basail	-99	-99.00	-99	.00	-99.00	23	.11	4.00	
Bhaluka	-99	-99.00	45	.10	4.50	23	.05	6.45	
Bhuabur									
Delduar	-99	-99.00	-99	.00	-99.00	30	.14	4.50	
Ghatail	-99	-99.00	80	.13	4.50	50	.08	3.20	
Gopalpur	8	5.63	12	.04	4.80	22	.07	5.00	
Gualanda	3	3.40	2	.01	3.20	20	.13	3.50	
Kalaroa									
Kailhati	10	1.50	25	.07	1.76	20	.05	3.00	
Karimganj	-99	-99.00	-99	.00	-99.00	18	.06	4.20	
Madhupur									
Mirzapur	11	3.27	13	.03	3.23	15	.04	3.93	
Mohammadpur	2	3.40	4	.01	3.45	3	.01	3.45	
Muktagachha									
Nagarpur	-99	-99.00	-99	.00	-99.00	30	.11	4.50	
Parshuram	2	2.00	-99	.00	-99.00	-99	.00	-99.00	
Raipur	-99	-99.00	-99	.00	-99.00	20	.12	3.00	
Ramgati	5	4.00	6	.01	4.16	40	.06	4.50	
Sadar	12	2.98	-2	.06	-48.29	44	.06	2.97	
Savar	-99	-99.00	261	1.21	3.20	291	1.35	2.50	
Shahrasti	-99	-99.00	-99	.00	-99.00	5	.02	4.00	
Shakhipur	42	6.50	33	.12	6.50	26	.09	15.33	
Trisal	-99	-99.00	70	.18	5.86	-99	.00	-99.00	

Data not provided  
 for 4 Upazila

7



NCNAME		Maize							
THANA_NAME	A97	PCA97	YLD97	A98	PCA98	YLD98	A99	PCA99	YLD99
Adimari	22	.08	1.80	40	.15	2.30	10	.04	2.20
Agailihara	0	.00	.00	1	.01	1.30	8	.07	2.50
A'wari	5	.02	1.50	20	.08	3.50	45	.16	3.70
Baliadangl	90	.26	3.20	75	.23	3.00	80	.24	3.10
Baniachong									
Barisai	3	.01	2.50	7	.04	2.95	25	.10	2.24
Bhola									
Birai									
Bishwanath									
Boranuddin	0	.00	.00	3	.01	4.50	9	.02	4.00
Chiribandar									
Dautlatpur									
Debiganj	15	.04	2.40	18	.04	2.25	30	.07	2.30
Gaurnadi	2	.02	3.00	3	.03	3.40	28	.27	3.00
Godabari	116	.23	2.14	125	.24	2.06	312	.56	2.54
Kanarol	200	.70	9.50	235	.81	9.20	250	.86	10.00
Kaliganj	45	.16	7.50	230	.82	5.00	129	.41	5.25
Laimanirhat	23	.06	3.40	50	.13	4.50	52	.16	4.50
Menendiganj	2	.01	2.00	4	.01	2.80	6	.02	2.50
Monanpur	0	.00	.00	1	.00	5.31	3	.02	6.67
Naogaon sadar									
Porsha	0	.00	.00	4	.01	3.45	3	.01	3.25
Rajibpur (Dhusmara)									
Rainagar	0	.00	.00	0	.00	.00	0	.00	2.00
Singair	82	.32	4.10	93	.30	4.70	105	.34	4.80

Data not provided for 8 Upazila

Cropped Area (Ha) and Yield (t/ha) Statistics of Different crops (1997-99) - Team DU

VARIETY NAME	CODE VARIETY									
	Maize									
	AR97	P97	YLD97	AR98	P98	YLD98	AR99	YLD99	P99	
Bogernat Sadar	0	00	0	0	00	0	5	2800	.02	
Barnatta										
Batiaghata										
Bera	14	08	2900	16	09	3100	25	3000	.13	
Bheramara	0	00	0	1	01	1235	2	1440	.01	
Daulatpur	0	00	0	680	1.68	2440	519	2935	1.49	
Dumuria										
Durgapur	7	03	3000	8	03	3000	12	3500	.04	
Harinakundu	5	02	980	6	02	950	7	1000	.02	
Isnawardi										
Jhinaidaha										
Kendua	0	00	0	17	05	3200	10	3000	.03	
Kushtia Sadar	0	00	0	5	.01	49400	38	4940	.12	
Maneshpur	7	02	1200	7	02	1040	5	900	.01	
Mirpur	11	04	4307	11	04	3721	12	4621	.05	
Mollahat	3	02	3150	150	.55	3250	1	3000	.01	
Nachol										
Nawabganj	0	00	0	3	01	4800	2	5100	.01	
Paikgachha										
Purbachala	15	05	2900	15	04	3000	20	3000	.05	
Rampal										
Ramu										
Santhia										
Sarankhola										
Shibganj	325	.99	4150	8615	17.52	5000	260	5250	.59	
Sujanagar	2	01	712	3	.01	603	2	745	.01	
Teraknada										

Data not provided for 12 varieties



2A11-2

	NCNAME									
	Groundnut									
	AR97	PCA97	YLD97	AR98	PCA98	YLD98	AR99	PCA99	YLD99	
ALAMDANGA	40	.09	3.30	27	.06	3.00	20	.04	3.20	
AUSTAGRAM	160	.25	2.00	170	.28	2.10	280	.48	1.95	
BOALMARI	3	.01	1.50	4	.01	1.50	3	.01	1.70	
BOGRA SADAR										
CHHAGALNAYA	7	.04	1.89	7	.04	1.36	9	.05	1.82	
GABTALI										
GOURIPUR	16	.04	2.20	44	.12	2.00	25	.09	1.80	
HATHAZARI	9	.05	1.70	7	.04	1.80	2	.01	2.00	
HATIA										
HOSSAINPUR	50	.26	1.85	55	.28	1.90	55	.27	1.90	
ISLAMPUR	450	1.70	1.60	350	1.24	1.50	400	1.75	1.40	
JAGANNATHPUR										
JAMALPUR SADAR	240	.45	2.50	100	.16	1.30	23	.04	1.40	
JOYPURHAT SADAR										
LAXMIPUR SADAR	-99	-99.00	-99.00	300	.52	1.70	250	.43	1.30	
MATLAB	140	.24	1.24	150	.25	.85	150	.24	1.70	
MYMENSINGH SADAR	63	.14	.95	50	.12	1.50	90	.23	1.80	
NARIA	15	.06	1.80	14	.06	1.42	25	.10	1.50	
PATHARGHATA										
PATIA	2	.01	1.75	2	.01	1.50	1	.00	1.80	
PIRIJUPUR SADAR	4	.01	1.50	2	.01	1.50	5	.02	1.50	
SADARPUR	1798	7.33	1.50	1610	6.70	2.50	2135	9.33	4.00	
SHARISABARI	12	.07	1.75	50	.24	2.00	161	.29	1.80	
SHARUPKATI	7	.03	1.70	10	.05	1.50	7	.04	1.60	
SUNAMGONJ SADAR	69	.17	1.37	60	.14	1.60	90	.21	1.50	

Table : ?? : Croppped Area (Ha), Percentage of Total CA and Yeld of different crops by Upazila (Team-BAU2)

	CODE VARIA									
	Groundnut									
	A97	P97	YLD97	A98	P98	YLD98	A99	P99	YLD99	
Balakandi	-99	.00	-99.00	-99	.00	-99.00	1	.00	1.25	
Basail										
Bhaluka	3	.01	1.60	1	.00	1.00	3	.01	1.80	
Bhuapur	-99	.00	-99.00	-99	.00	-99.00	383	1.88	1.90	
Delduar										
Ghatail	-99		-99.00	3	.00	1.00	-99	.00	-99.00	
Gopalpur										
Gualanda	205	1.61	1.24	165	1.08	3.30	160	1.05	1.38	
Kalaroa										
Kalinhati	-99	.00	-99.00	-99	.00	-99.00	6	.02	1.09	
Karimganj	-99	.00	-99.00	-99	.00	-99.00	100	.31	1.98	
Madhupur										
Mirzapur	11	.03	2.54	9	.02	2.55	8	.02	1.25	
Monammadpur	2	.01	1.45	29	.09	1.60	82	.26	1.80	
Muktagachha	2	.00	.95	1	.00	.80	4	.01	.72	
Nagarpur	-99	.00	-99.00	20	.07	1.80	30	.11	1.80	
Parshuram	30	.12	2.07	35	.14	2.00	-99	.00	-99.00	
Raipur	-99	.00	-99.00	-99	.00	-99.00	20	.12	1.50	
Ramgati	5100	7.88	1.70	5500	8.64	1.48	5250	8.25	1.20	
Sadar	33	.04	1.42	52	.06	1.45	107	.13	1.65	
Savar	-99		-99.00	60	.28	1.15	25	.12	2.00	
Shanrasti	-99	.00	-99.00	-99	.00	-99.00	1	.00	1.50	
Shakhipur	1	.00	2.00	5	.02	1.50	10	.04	1.79	
Total	20	.05	2.50	10	.03	2.30	15	.04	2.13	

Superior - no  
information  
Most yield  
figures high  
than national  
average



THANA_NAME	NCNAME									
	Groundnut									
	A97	PCA97	YLD97	A98	PCA98	YLD98	A99	PCA99	YLD99	
Aditmari	180	.64	.74	350	1.30	.73	260	.93	.80	
Aqailhara	81	.70	1.84	32	.34	1.29	129	1.15	1.70	
Atwar	0	.00	.00	1	.00	.92	5	.02	1.00	
Bairadangi										
Baniachong										
Barisal	1	.00	1.90	2	.01	1.80	4	.02	1.50	
Bhoia	902	2.42	2.09	785	2.05	1.20	490	1.30	.80	
Biral										
Blshwanath										
Boranuddin	75	.21	2.00	350	.95	2.00	350	.90	1.70	
Chirbandar										
Dautlatpur	190	.75	1.14	232	.92	1.16	248	1.04	1.16	
Debiganj	221	.57	1.85	344	.85	1.90	305	.71	1.80	
Gaurnadi	1	.01	1.90	5	.05	1.30	2	.02	1.75	
Godabari	1	.00	.68	1	.00	.75	1	.00	.50	
Kanaroi										
Kaliganj	259	.92	1.20	301	1.08	1.42	377	1.20	1.50	
Laimanirhat	30	.08	1.50	34	.09	1.50	60	.18	1.60	
Mehendiganj	7	.03	1.60	4	.01	1.30	5	.02	1.50	
Monanpur										
Naogaon sadar										
Porsna										
Rajibpur (Dhusmara)	150	1.23	.90	110	.90	.90	90	.73	.90	
Rajnagar	0	.00	.00	0	.00	.00	4	.02	1.00	
Singair										

no data for 10 Upazila

The Library  
Agricultural Information Centre  
BARC, Farmgate, Dhaka-1215

THANA_NAME	CODE VARIA									
	Groundnut									
	AR97	P97	YLD97	AR98	P98	YLD98	AR99	YLD99	P99	
Bagmati Sadar	0	00	0	5	02	800	13	905	04	
Barnatta	950	5.09	740	1000	5.47	891	1125	800	5.73	
Batiagnata	3	02	1088	4	03	1102	3	1185	02	
Bera	23	06	1147	22	05	1125	17	1235	04	
Bheramara	70	31	2000	110	40	1800	195	1650	72	
Daulatpur	40	17	2900	38	15	2790	40	2712	16	
Dumuna	0	00	0	0	00	0	1	1500	00	
Durgapur										
Hannakundu										
Isnawardi										
Jhinaidaha										
Kendua										
Kushtia Sadar	25	06	1500	26	06	1440	30	1400	07	
Manesnpur	6	03	2050	4	01	2100	5	2000	03	
Mirpur										
Mollanai										
Nacnoi	0	00	0	0	00	0	5	710	01	
Nawabganj	20	06	1899	30	09	1899	50	1900	13	
Paikgachha	7	02	1150	6	02	1175	6	1200	07	
Puroadhala	5	01	3200	4	01	3400	7	3458	02	
Rampal										
Ramu	10	03	700	10	02	700	10	720	02	
Santhia	175	81	1293	125	60	1002	155	913	70	
Sarankhola										
Shibganj										
Sujanagar										
Teraknada										

1-10 data for 2 years - 1997-1998

Too high from the national level  
Why yield in Kgs



6211-

		NCNAME									
		Sweet Potato									
AR97	PCA97	YLD97	AR98	PCA98	YLD98	AR99	PCA99	YLD99			
ALAMDANGA	105	.22	11.35	105	24	11.30	.22	12.50			
AUSTAGRAM	800	1.24	15.00	850	1.41	15.00	1.49	12.50			
BOALMARI											
BOGRA SADAR	146	.27	9.55	69	.13	12.00	.16	15.00			
CHHAGALNAYA											
GABTALI	15	.04	13.06	20	.05	15.40	.09	14.50			
GOURIPUR	75	.20	15.04	35	.09	13.14	.07	13.25			
HATHAZARI	21	.13	19.00	22	.13	20.00	.14	20.00			
HATIA											
HOSSAINPUR	55	.29	10.00	55	.28	10.00	.28	10.00			
SLAMPUR	370	1.40	14.50	300	1.07	15.00	1.97	14.00			
JAGANNATHPUR	25	.10	14.48	27	.12	11.29	.10	15.00			
JAMALPUR SADAR	250	.46	15.00	190	.30	15.00	-.99	-.99.00			
JOYPUKHAT SADAR	15	.04	8.00	14	.04	8.50	.04	8.00			
LAXMIPUR SADAR	-99	-.99.00	-.99.00	300	.52	13.00	.52	28.00			
MATLAB	405	.68	14.57	400	.67	48.00	.65	30.00			
MYMENSINGH SADAR	100	.23	16.27	60	.14	12.00	.25	21.00			
NARIA	450	1.94	18.00	400	1.77	20.25	1.02	18.00			
PATHARGHATA	25	.12	39.00	35	.16	45.00	.11	42.00			
PATIA	22	.08	13.00	25	.10	15.00	.08	12.00			
PIRIJPUR SADAR	-99	-.99.00	-.99.00	30	.10	37.00	-.99	-.99.00			
SADARPUR	93	.38	14.00	98	.41	15.00	.26	13.50			
SHARISABARI	419	2.28	18.02	232	1.11	13.00	.36	12.00			
SHARUPKATI	-99	-.99.00	-.99.00	20	.09	14.00	.20	15.00			
SUNAMGONJ SADAR	345	.83	15.50	350	.81	12.00	.84	12.30			

Table : ?? : Cropped Area (Ha), Percentage of Total CA and Yield of different crops by Upazila (Team-BAU2)

6 Upazila  
No. data

	CODE VARIA									
	Sweet Potato									
	A97	P97	YLD97	A98	P98	YLD98	A99	P99	YLD99	
Bairakandi	-99	.00	-99.00	-99	.00	-99.00	.41	.20	14.00	
Basail	23	.05	15.00	17	.04	16.00	30	.07	15.00	
Bhaluka	497	2.09	18.40	397	1.94	20.59	497	2.43	20.59	
Bhuidar	-99		-99.00	30	.05	22.00	22	.04	18.00	
Ghatali										
Gopalpur										
Gualanda										
Kalaroa										
Kalihat	-99	.00	-99.00	-99	.00	-99.00	82	.21	12.79	
Karimgani	-99	.00	-99.00	-99	.00	-99.00	30	.09	5.10	
Madhuour										
Mirzapur	-99	.00	-99.00	130	.35	14.20	-99	.00	-99.00	
Monammadpur	25	.09	18.40	25	.08	15.00	39	.12	20.25	
Muktagechna	110	.24	9.07	80	.17	9.40	92	.19	9.60	
Nagarpur	-99	.00	-99.00	225	.83	27.56	250	.92	14.00	
Parshuram	195	.78	17.60	225	.90	17.50	175	.70	16.00	
Raipur	-99	.00	-99.00	150	.88	3.60	30	.18	9.00	
Ramgati	-99	.00	-99.00	-99	.00	-99.00	700	1.10	5.00	
Sadar	109	.13	14.30	88	.10	14.60	91	.11	14.75	
Savar	-99		-99.00	57	.27	10.15	42	.20	24.00	
Shanrasti	30	.16	14.03	20	.09	8.50	25	.12	7.00	
Shakhidur	8	.02	12.00	4	.01	8.50	18	.07	26.70	
Trisal	25	.07	18.90	20	.05	18.50	50	.13	15.60	



HANA_NAME	NCNAME									
	Sweet Potato									
	A97	PCA97	YLD97	A98	PCA98	YLD98	A99	PCA99	YLD99	
Agimari	130	.46	7.50	110	.41	7.33	20	.07	8.20	
Agaulnara	20	.17	17.20	14	.15	20.01	10	.09	18.20	
Atwari	15	.07	11.25	30	.12	11.75	115	.41	11.50	
Baladangi	72	.21	12.95	55	.20	13.50	80	.24	13.07	
Baniachong	25	.08	9.43	28	.09	8.50	35	.11	8.10	
Bansai	235	1.08	22.50	143	.79	23.70	5	.02	20.00	
Bhola	1300	3.49	19.00	1470	3.85	13.00	900	2.08	10.00	
Biral	1	.00	9.32	0	.00	9.62	0	.00	9.50	
Bishwanath	8	.05	16.00	3	.06	17.00	7	.04	18.00	
Boranuddin	500	1.71	25.00	350	.95	16.00	600	1.55	12.00	
Chirioandar	19	.05	3.42	20	.05	3.55	24	.06	3.26	
Daultatour	59	.24	9.88	47	.19	9.88	36	.15	9.88	
Debiganj	145	.37	13.50	103	.25	13.00	170	.39	13.25	
Gauradi	10	.09	15.00	25	.24	15.00	25	.24	16.00	
Godabari	1	.00	15.00	2	.00	14.00	2	.00	14.00	
Kanarol	29	.10	8.50	15	.05	9.00	25	.09	8.70	
Kailganj	135	.48	24.50	132	.47	25.00	150	.48	10.00	
Lalmanirnat	125	.33	12.00	110	.29	14.00	108	.33	13.00	
Menendiganj	401	1.62	21.00	371	1.03	25.00	335	1.03	22.00	
Monanpur										
Naogaon sadar	120	.37	22.00	100	.31	19.00	150	.46	20.00	
Porsna	9	.03	8.82	11	.04	8.95	12	.04	9.72	
Rajibpur (Dhusmara)	50	.49	10.00	75	.61	9.00	120	.97	8.50	
Rainagar	73	.32	8.84	70	.28	8.84	50	.21	8.80	
Singair	55	.25	12.50	42	.14	13.00	20	.06	10.50	

1 upazila no- 2 at.





PAU-1

NCNAME									
Mungbeen									
AR97	PCA97	YLD97	AR98	PCA98	YLD98	AR99	PCA99	YLD99	
ALAMDANGA	30	.06	.75	30	.07	.75	.14	1.30	
AUSTAGRAM	140	.22	.85	140	.23	.80	.28	.80	
BOALMARI	120	.33	.35	160	.47	.40	.37	.45	
BOGRA SADAR									
CHHAGALNAYA	10	.06	.89	10	.05	1.00	.08	1.00	
GABTALI	82	.22	2.00	72	.17	1.50	.22	1.02	
GOURIPUR	12	.03	.60	20	.05	.54	.09	.75	
HATHAZARI	1	.01	1.20	1	.01	1.30	.01	.60	
HATIA									
HOSSAINPUR	60	.32	6.50	60	.31	6.80	.30	.58	
ISLAMPUR	30	.11	.90	25	.09	.90	.11	.30	
JAGANNATHPUR									
JAMALPUR SADAR	60	.11	.41	60	.09	.41	.01	.60	
JOYPURHAT SADAR									
LAXMIPUR SADAR	-99	-99.00	-99.00	220	.38	.65	.40	.70	
MATLAB	50	.08	3.10	70	.12	3.48	.11	1.25	
MYMENSINGH SADAR	19	.04	.68	22	.05	.72	.04	.38	
NARIA	25	.11	.90	20	.09	1.97	.12	.75	
PATHARGHATA									
PATIA	3	.01	.75	3	.01	.70	.01	.60	
PIRIJUPUR SADAR	25	.09	.60	30	.10	.65	.07	.65	
SADARPUR	66	.27	1.00	80	.33	1.00	.49	1.50	
SHARISABARI	5	.03	.65	10	.05	1.00	-99.00	-99.00	
SHARUPKATI	55	.26	.66	56	.25	.57	.20	.65	
SUNAMGONJ SADAR	35	.08	.60	35	.08	.66	.08	.69	

Table : ?? : Cropped Area (Ha), Percentage of Total CA and Yield of different crops by Upazila (Team-BAU2)

	CODE VARIA									
	Munqbeer									
	A97	P97	YLD97	A98	P98	YLD98	A99	P99	YLD99	
Baliakandi	100	34	.60	36	13	.70	30	.11	.60	
Basail										
Bhaluka	92	21	1.00	72	.17	1.10	78	.18	1.15	
Bhuadur	715	301	.78	487	2.39	7.51	487	2.39	.75	
Derduar										
Ghatail	-99		-99.00	20	.03	1.50	25	.04	.90	
Gopalpur										
Gualanda	62	49	1.05	41	.27	1.00	163	1.07	.68	
Kalaroa	14	05	.64	-99	.00	-99.00	-99	.00	-99.00	
Kalihatil										
Karimganj										
Madhupur	-99	00	-99.00	-99	.00	-99.00	370	1.18	.65	
Mirzapur										
Mohammadpur	134	46	.71	128	.41	.73	116	.37	.75	
Muktigachna										
Nagarpur	-99	00	-99.00	5	.02	.85	-99	.00	-99.00	
Parsnurem	-99	00	-99.00	1	.00	.60	-99	.00	-99.00	
Raipur	-99	00	-99.00	150	.88	.30	30	.18	.50	
Ramgati	850	131	.48	1200	1.89	2.90	1200	1.89	.55	
Sagar	21	03	.74	27	.04	.79	-39	.02	-49.23	
Savar										
Shahrastil	2	.01	.50	2	.01	.75	2	.01	.50	
Shakhpur	-99	00	-99.00	-99	.00	-99.00	720	2.60	1.50	
Trisal	35	.09	1.30	34	.09	1.30	35	.09	1.32	



8 upazila - rd  
in down side



to Uparikshas - 7  
information

HANA_NAME	NCNAME									
	Mundbeen									
	A97	PCA97	YLD97	A98	PCA98	YLD98	A99	PCA99	YLD99	
Aditmani	1	00	1.10	0	00	00	0	00	00	
Agailjhara	86	74	793.00	75	80	47	88	78	52	
Atwari	0	00	00	0	00	00	5	02	50	
Baliadangi	79	23	95	65	20	98	15	04	100	
Baniachong										
Barisal	150	59	85	168	93	80	100	39	37	
Bhola	1475	3.96	85	1470	3.85	80	960	2.54	1.11	
Birai	16	04	65	16	04	63	17	05	53	
Bishwanath										
Boranuddin	553	1.58	1.00	350	95	90	430	1.11	30	
Chiripandar	10	03	70	8	02	65	11	03	62	
Dautlatpur	45	18	49	36	14	54	29	12	49	
Debigani	3	01	65	4	01	65	10	02	62	
Gaurnadi	25	23	68	50	48	90	95	91	80	
Godabari	0	00	00	5	01	60	2	00	50	
Kaharol										
Kaliganj	1	00	2.00	2	01	1.00	1	00	1.20	
Lalmanirhat	2	01	70	1	00	75	3	01	70	
Menendiganj	29	12	80	18	05	90	20	06	80	
Mohanpur										
Naogaon sadar	6	02	62	5	02	62	3	01	63	
Porsna										
Rajibpur (Dhusmara)										
Rajnagar	7	03	64	1	00	66	1	00	65	
Singair	0	00	00	27	09	1.00	3	01	1.00	

RAIT

NCNAME										
Blackgram										
AR97	PCA97	YLD97	AR98	PCA98	YLD98	AR99	PCA99	YLD99		
ALAMDANGA	120	.26	120	.28	.79	30	.06	.72		
AUSTAGRAM	70	.11	71	.12	.84	200	.34	1.00		
BOALMARI	30	.08	40	.12	.50	35	.10	.50		
BOGRA SADAR										
CHHAGALNAYA										
GABTALI										
GOURIPUR	80	.21	80	.21	.65	75	.26	.65		
HATHAZARI	2	.01	1	.01	1.50	1	.01	.70		
HATIA										
HOSSAINPUR	100	.53	100	.51	.75	100	.50	.75		
ISLAMPUR	200	.78	155	.55	1.80	250	1.09	1.60		
JAGANNATHPUR										
JAMALPUR SADAR	50	.11	100	.16	.55	350	.60	.80		
JOYPURHAT SADAR	40	.11	36	.11	1.42	40	.11	1.50		
LAXMIPUR SADAR	-99	-99.00	160	.28	.65	300	.52	.40		
MATLAB	200	.34	300	.51	3.10	150	.24	1.10		
MYMENSINGH SADAR	170	.38	175	.41	.78	800	2.03	.95		
NARIA	100	.43	100	.44	.80	150	.60	.75		
PATHARGHATA										
PATIA	3	.01	3	.01	1.00	2	.01	.90		
PIRIJUPUR SADAR										
SADARPUR	485	1.98	700	2.91	1.40	1491	6.52	2.50		
SHARISABARI	118	.64	102	.49	1.29	370	.67	1.29		
SHARUPKATI										
SUNAMGONJ SADAR	62	.15	65	.15	.88	87	.20	.77		



Cropped Area (Ha) and Yield (??) Statistics of Different crops (1997-99) - Team DU

THANA_NAME	CODE VARIA									
	Mungbeen									
	AR97	P97	YLD97	AR98	P98	YLD98	AR99	YLD99	P99	
Begamat Sadar	1	.01	900	2	.01	790	0	300	.00	
Barnatia										
Balaghata	57	.38	934	59	.46	884	79	1420	.55	
Bera	1390	7.45	1325	1375	7.52	1101	1411	1201	7.19	
Bheramara	117	.85	825	97	.66	793	96	776	.53	
Daulatpur	9	.02	510	9	.02	539	4	525	.01	
Dumuna	30	.09	864	28	.09	741	26	741	.08	
Durgapur	10	.04	1400	10	.04	700	12	900	.04	
Harinakundu	75	.31	885	50	.21	864	50	790	.17	
Snawardi	20	.08	1740	24	.10	1640	28	1710	.11	
Jhinaldaha	95	.15	964	105	.19	968	128	1000	.23	
Kandua	11	.03	1000	13	.04	1000	15	1100	.04	
Kushtia Sadar	0	.00	0	15	.04	517	15	517	.05	
Manespur	160	.36	933	188	.42	1008	224	900	.49	
Mirpur										
Mollanat										
Nacnol										
Nawabbanj	10	.03	612	10	.03	610	12	630	.03	
Paikgachha	4	.02	840	4	.02	864	5	889	.14	
Purbachala	75	.23	600	80	.23	600	80	600	.21	
Rampal										
Ramu										
Santhia	17	.05	1976	20	.05	2074	15	1778	.04	
Sarankhola										
Shibganj	15	.05	670	20	.04	670	10	680	.02	
Sujanagar	911	4.24	590	920	4.44	635	845	640	3.79	
Terakhada										

8 upazidas - no  
information  
yield in kg. 7

Table : ?? : Cropped Area (Ha), Percentage of Total CA and Yield of different crops by Upazila (Team-BAU2)

	CODE VARIA									
	Blackgram									
	A97	P97	YLD97	A98	P98	YLD98	A99	P99	YLD99	
Ballakandi	-99	.00	-99.00	-99	.00	-99.00	15	.07	-99.00	
Basail										
Bhaluka										
Bhuapur										
Deouar										
Ghatail										
Gopalpur										
Gualanda	285	2.24	72	258	1.70	.73	611	4.02	.72	
Kalaroa	75	.28	1.05	68	.26	.79	-99	.00	-99.00	
Kalihatil	100	.25	.63	270	.70	1.14	318	.83	.77	
Karimganj										
Madhupur										
Mirzapur	72	.21	.73	102	.27	.76	140	.38	.72	
Monammadpur	109	.38	.74	91	.29	.65	112	.36	.68	
Muktagachhna										
Nagarpur	341	1.16	.36	50	.18	.87	50	.18	.63	
Parsnuram	80	.32	1.05	50	.20	.80	-99	.00	-99.00	
Raipur	-99	.00	-99.00	-99	.00	-99.00	7	.04	.50	
Ramgati										
Sadar	527	.61	.79	489	.57	.73	1046	1.22	.83	
Savar										
Shahrasti	6	.03	.66	6	.03	.60	10	.05	.65	
Shakhipur	510	1.34	.90	350	1.27	.80	400	1.45	.50	
Trisal										

For many crops,  
Gualanda figures  
(area covered)  
~~area~~ exhibited  
high magnitudes



No information  
12 Upazilas



THANA_NAME	NCNAME									
	Blackgram									
	A97	PCA97	VLD97	A98	PCA98	VLD98	A99	PCA99	YLD99	
Adimari	50	18	70	15	.06	.64	20	07	.92	
Agauphara										
Atwari	30	13	60	40	.16	.60	50	18	.55	
Baliadangi	175	51	85	277	.85	.93	300	89	.95	
Baniachong										
Bansai										
Bhola										
Birai	100	26	65	94	.25	.52	95	26	.67	
Bishwanath										
Boranuddin										
Chiribandar	35	.09	.75	33	.09	.72	30	07	.74	
Daulatpur										
Deorigani	135	35	90	105	.26	.78	60	.14	.75	
Gaurnadi	3	.03	.75	3	.03	.60	5	.05	.50	
Goabari	1650	3.21	90	1880	3.57	.85	1650	2.94	.94	
Kanarol	140	.49	1.35	110	.38	1.40	150	.51	1.50	
Kailigani	30	11	2.70	5	.02	1.50	19	.06	1.00	
Laimanirhat	120	31	.70	80	.21	.85	84	.26	.65	
Manandiganj										
Mananour	77	37	.98	0	.00	.00	0	.00	.00	
Naogaon sadar	62	19	.93	60	.19	.93	45	.14	.93	
Porsna										
Rayapur (Dhusmara)	45	37	60	75	.61	.60	50	.40	.60	
Rainagar	10	.04	.55	10	.04	.70	6	.02	.72	
Singur	74	28	1.04	85	.28	1.20	268	.87	1.13	

No information for 9  
Upazila

THANA_NAME	CODE VARIA								
	Blackgram								
	AR97	P97	YLD97	AR98	P98	YLD98	AR99	YLD99	P99
Bagnat Sadar	590	3.16	1075	503	2.75	1127	721	970	3.67
Barnatta	166	1.21	934	166	1.13	855	162	725	1.07
Baliagnata	83	22	1102	52	15	1098	56	1031	16
Bera	49	14	988	52	16	970	50	1112	16
Bheramara	13	06	800	20	07	820	34	800	13
Dauatour	175	72	850	170	70	840	142	815	47
Dumuria	184	77	1800	187	74	1810	187	1790	74
Durgapur	140	25	964	160	29	968	188	1000	34
Harnakundu	40	12	1050	45	12	1100	35	1200	10
Isnawardi	137	42	913	297	85	988	155	988	48
Jhinaldana	230	52	1050	250	56	945	200	1000	44
Kendua									
Kushtia Sadar									
Maneshpur									
Mirdur									
Mollanat									
Nachol	711	2.54	1370	650	2.40	1420	700	1500	2.33
Nawabganj	1959	5.50	790	2273	5.10	760	3327	710	8.61
Paikgachha	5	.02	1062	6	.03	1116	7	1062	.19
Puroadhala	15	.05	1500	140	41	1500	145	1500	.38
Rampal									
Ramu									
Santhia	135	.39	2275	140	.35	2173	150	2074	.36
Sarankhola									
Shibganj	4750	14.49	670	4100	8.34	670	3000	700	6.75
Sujanagar	850	3.95	923	150	.72	897	141	821	.63
Terakhada									

No information for 9  
Uparisila



24-1

NCNAME										
Sasama										
AR97	PCA97	YLD97	AR98	PCA98	YLD98	AR99	PCA99	YLD99		
10	.02	.82	21	.05	.79	32	.06	.73		
400	1.09	.60	350	1.02	.60	300	.84	.65		
1	.00	.80	1	.00	.79	2	.00	.79		
10	.06	2.00	10	.05	2.10	13	.07	2.25		
2	.01	.80	2	.00	.89	2	.01	1.00		
-99	-99.00	-99.00	10	.03	1.50	12	.04	1.10		
4	.02	.50	7	.04	.50	1	.01	.70		
5166	<u>7.16</u>	1.00	20200	19.97	.80	16410	17.03	1.18		
-99	-99.00	-99.00	30	.05	1.20	30	.05	1.20		
5	.02	.71	5	.01	.62	5	.01	.45		
25	.04	1.50	20	.03	.75	25	.04	1.74		
5	.02	1.90	10	.05	1.70	15	.05	1.75		
4	.01	.85	2	.01	.85	6	.02	.85		
13	.03	.85	15	.03	1.00	55	.13	1.00		

Table : ?? : Cropped Area (Ha), Percentage of Total CA and Yield of different crops by Upazila (Team-BAU2)

	CODE VARIA									
	Sesame									
	A97	P97	YLD97	A98	P98	YLD98	A99	P99	YLD99	
Baliakandi	250	.85	.80	350	1.26	1.25	350	1.26	1.25	
Basail	.	.	.	.	.	.	.	.	.	
Bhaluka	.	.	.	.	.	.	.	.	.	
Bhuabur	.	.	.	.	.	.	.	.	.	
Delduar	-99	.00	-99.00	-99	.00	-99.00	96	.46	-99.00	
Ghatali	.	.	.	.	.	.	.	.	.	
Gopalpur	.	.	.	.	.	.	.	.	.	
Gualanda	75	.59	.72	120	.79	.80	70	.46	.70	
Kalaroa	550	2.08	.66	696	2.55	.97	-99	.00	-99.00	
Kalihati	97	.25	.40	105	.27	.36	75	.20	.36	
Karimganj	.	.	.	.	.	.	.	.	.	
Madhuapur	.	.	.	.	.	.	.	.	.	
Mirzapur	55	.16	.72	76	.20	.76	26	.07	.88	
Mohammadpur	57	.20	.93	75	.24	.93	54	.17	.93	
Muktagachha	.	.	.	.	.	.	.	.	.	
Nagarpur	.	.	.	.	.	.	.	.	.	
Parshuram	.	.	.	.	.	.	.	.	.	
Raipur	.	.	.	.	.	.	.	.	.	
Ramgati	.	.	.	.	.	.	.	.	.	
Sadar	147	.17	.63	68	.08	.75	157	.19	.68	
Savar	.	.	.	.	.	.	.	.	.	
Shanrasti	.	.	.	.	.	.	.	.	.	
Shakhpur	.	.	.	.	.	.	.	.	.	
Trisal	.	.	.	.	.	.	.	.	.	

16 upazila -  
no data



10

10



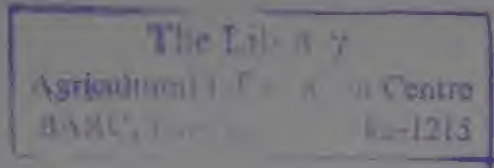


CA11

	NCNAME									
	Chickpea									
	AR97	PCA97	YLD97	AR98	PCA98	YLD98	AR99	PCA99	YLD99	
ALAMDANGA	50	.11	.87	50	.11	.87	55	.11	.85	
AUSTAGRAM										
BOALMARI	400	1.09	20	528	1.54	20	477	1.34	.25	
BOGRA SADAR										
CHHAGALNAYA	1	.01	.81	2	.01	.93	1	.01	.80	
GABTALI										
GOURIPUR	7	.02	1.00	5	.01	.69	8	.03	.70	
HATHAZARI										
HATIA	362	1.00	40	1445	1.43	.40	509	.53	.74	
HOSSAINPUR	40	.21	.85	30	.15	.75	45	.22	.92	
ISLAMPUR										
JAGANNATHPUR										
JAMALPUR SADAR	30	.06	1.50	-99	-99.00	-99.00	-99	-99.00	-99.00	
JOYPURHAT SADAR										
LAXMIPUR SADAR	-99	-99.00	-98.00	60	.10	.80	35	.06	.50	
MATLAB	3	.01	2.50	5	.01	.93	4	.01	1.50	
MYMENSINGH SADAR										
NARIA	130	.56	1.00	100	.44	.90	205	.82	.80	
PATHARGHATA	325	1.55	.65	400	1.83	.76	350	1.25	.60	
PATIA										
PIRIJUPUR SADAR										
SADARPUR	-99	-99.00	-99.00	50	.21	-99.00	86	.38	1.00	
SHARISABARI	1	.01	1.00	5	.03	1.50	22	.04	1.50	
SHARUPKATI										
SUNAMGONJ SADAR	13	.03	.69	15	.03	1.00	18	.04	1.27	

Table : ?? : Cropped Area (Ha), Percentage of Total CA and Yield of different crops by Upazila (Team-BAU2)

	CODE VARIA									
						Chickpea				
	A97	P97	YLD97	A98	P98	YLD98	A99	P99	YLD99	
Baliakandi										
Basail										
Bhaluka	5	.01	1.00	12	.03	1.00	10	.02	1.60	
Bhuapur										
Delduar										
Ghatail										
Gopalpur										
Guatanda	.99	.00	-99.00	207	1.36	.54	150	.99	.74	
Kalaroa	310	1.17	1.10	370	1.41	.84	124	.47	.84	
Kalinati	.99	.00	-99.00	10	.03	.73	2	.01	.73	
Karimganj										
Madhubur										
Mirzapur										
Mohammadpur	542	1.87	1.25	601	1.92	.55	280	.89	.85	
Muktigachha	70	.16	.92	48	.10	.82	21	.04	.76	
Nagarpur	.99	.00	-99.00	65	.24	1.10	25	.09	.60	
Parshuram										
Raipur	.99	.00	-99.00	10	.06	1.20	4	.02	.30	
Ramgati	.99	.00	-99.00	.99	.00	-99.00	30	.05	.60	
Sadar	469	.54	.85	282	.33	.78	1191	1.44	-49.28	
Savar										
Shanrasti										
Shakhipur										
Trisal	75	20	1.20	75	.20	1.10	76	.20	1.20	



13 Upazilas -  
no information

\* For almost all the  
crops - Number of Upazilas  
with no information  
high.



THANA_NAME	NCNAME								
	Chickpea								
	A97	PCA97	YLD97	A98	PCA98	YLD98	A99	PCA99	YLD99
Aditmani	2	.01	1.20	2	.01	1.30	3	.01	1.25
Agailjhara	12	.10	1.50	10	.11	.98	8	.07	.95
Atwari	22	.10	.65	7	.03	.49	105	.38	.64
Balledangi	120	.35	1.20	95	.29	1.10	100	.30	1.25
Baniachong									
Barisal	230	1.06	1.10	300	1.65	1.30	280	1.09	1.20
Bhola									
Biral									
Bisnwanath									
Boranuddin	500	1.43	1.20	500	1.36	.70	350	.90	.65
Chiribandar	34	.09	.82	36	.10	.85	29	.07	.80
Dautlatpur	37	.15	.60	12	.05	.54	9	.04	.49
Debiganj	4	.01	.70	10	.02	.72	110	.25	.60
Gaurnadi	200	1.82	.93	300	2.90	.70	110	1.05	.70
Godabari	2100	4.08	.80	2115	4.01	.85	2500	4.45	.70
Kanarol	120	.42	.82	135	.47	.75	140	.48	.76
Kailiganj	2	.01	2.00	5	.02	1.90	10	.03	2.00
Lamanirnat	2	.01	.80	2	.01	1.00	7	.02	.70
Menendiganj	37	.15	1.40	26	.07	1.10	18	.06	1.30
Mohanpur	25	.12	2.20	16	.08	.87	13	.07	.78
Naogaon sadar	16	.05	.75	9	.03	.80	15	.05	.74
Porsha	184	.68	.90	188	.69	.76	160	.58	1.46
Rajibpur (Dhusmara)	80	.66	.60	80	.66	.60	81	.65	.59
Rajnaga	3	.01	.80	3	.01	.82	1	.00	.83
Singair	21	.08	.88	16	.05	1.00	20	.06	.80

No information for  
4 Upazilas

THANA_NAME	CODE VARIA									
	Chickpea									
	AR97	P97	YLD97	AR98	P98	YLD98	AR99	YLD99	P99	
Bagerhat Sadar	1	.01	275	2	.01	300	2	310	.01	
Barnatta										
Batiaghata	9	.06	1477	10	.07	1392	12	1376	.08	
Bera										
Bheramara	10	.07	908	12	.08	995	13	992	.09	
Daulatpur	72	.19	803	47	.12	721	57	744	.14	
Dumuna	24	.07	986	24	.08	980	25	980	.08	
Durgapur										
Harinakundu	660	2.70	875	640	2.64	850	210	840	.69	
Shawardi	38	.16	990	38	.15	902	40	871	.16	
Jhinaidaha	405	.76	1239	415	.75	1253	470	1200	.86	
Kendua	5	.02	1100	1	.00	1000	3	1100	.01	
Kushtia Sadar	927	2.83	655	1400	4.03	741	1400	765	4.30	
Maneshpur	40	.09	980	50	.11	925	30	900	.07	
Mirpur	239	.31	628	243	.93	691	267	630	1.04	
Mollanai										
Nachol										
Nawabbari	272	.76	810	297	.80	960	400	810	1.04	
Paikgachha	2	.01	892	2	.01	887	3	889	.08	
Puroadhala										
Rampal										
Ramu										
Santhia	832	2.38	988	500	1.23	1050	450	1086	1.09	
Sarankhola										
Shibganj	300	.92	620	500	1.02	670	700	850	1.58	
Sujanagar										
Tarakhada										

No information for 11  
Upazila



244-1

		NCNAME									
		Khesha									
AR97	PCA97	YLD97	AR98	PCA98	YLD98	AR99	PCA99	YLD99	AR99	PCA99	YLD99
ALAMDANGA	1006	2.14	.70	1006	2.31	.70	567	1.31	567	1.31	.64
AUSTAGRAM	155	.24	.93	156	.26	.89	123	.21	123	.21	.78
BOALMARI	1000	2.74	.35	900	2.62	.55	825	2.32	825	2.32	.60
BOGRA SADAR											
CHHAGALNAYA	6	.03	.89	8	.04	1.00	3	.02	3	.02	1.00
GABTALI											
GOURIPUR	33	.09	.72	30	.08	.71	20	.07	20	.07	.72
HATHAZARI	1	.01	.90	1	.01	1.00	1	.01	1	.01	.70
HATIA	-99	-99.00	-99.00	19	.02	1.50	22	.02	22	.02	.71
HOSSAINPUR	80	.42	.75	45	.23	.77	100	.50	100	.50	.76
ISLAMPUR	175	.66	.90	130	.46	1.00	245	1.07	245	1.07	1.00
JAGANNATHPUR	3	.01	.83	2	.01	1.00	4	.02	4	.02	.75
JAMALPUR SADAR	100	.19	1.50	95	.15	.46	100	.17	100	.17	.40
JOYPUKHAT SADAR	16	.04	1.10	15	.04	1.00	17	.05	17	.05	1.00
LAXMIPUR SADAR	-99	-99.00	-99.00	800	1.39	.60	1000	1.73	1000	1.73	1.00
MATLAB	250	.42	2.80	250	.42	.77	200	.33	200	.33	1.75
MYMENSINGH SADAR	45	.10	.82	100	.23	.70	75	.19	75	.19	.69
NARIA	1750	7.53	1.10	1800	7.97	1.10	1620	6.47	1620	6.47	.88
PATHARGHATA	3	.01	.80	1	.00	.75	13	.05	13	.05	.75
PATIA	32	.12	.85	35	.14	.90	30	.12	30	.12	.85
PIRIJUPUR SADAR	1280	4.42	.70	1100	3.73	.70	1050	3.87	1050	3.87	.70
SADARPUR	1325	5.40	1.50	1150	4.78	2.00	1595	6.97	1595	6.97	1.50
SHARISABARI	90	.49	1.20	131	.63	1.20	56	.10	56	.10	.68
SHARUPKATI	290	1.37	.78	300	1.37	.65	410	2.36	410	2.36	.80
SUNAMGONJ SADAR	22	.05	.68	25	.06	.72	26	.06	26	.06	.77

Table : 77 : Cropped Area (Ha), Percentage of Total CA and Yeld of different crops by Upazila (Team-BAU2)

	CODE VARIA									
	Kheshari									
	A97	P97	YLD97	A98	P98	YLD98	A99	P99	YLD99	
Baliakandi	150	.51	.80	210	75	.50	550	1.98	.60	
Basail	-99	.00	-99.00	43	.21	1.25	70	.35	1.20	
Bhaluka	7	.02	.70	5	.01	.70	4	.01	1.50	
Bhuapur	555	2.33	1.07	526	2.58	1.22	526	2.58	1.22	
Delduar										
Ghatail	-99		-99.00	8	.01	1.80	6	.01	1.50	
Gopalpur										
Gualanda	195	1.54	.74	331	2.18	1.48	597	3.92	1.30	
Kalaroa	80	.30	.76	125	.48	.82	156	.59	.83	
Kalihati	81	.21	1.09	30	.08	1.38	84	.22	1.10	
Karimganj										
Machupur										
Mirzapur	600	1.76	1.00	570	1.53	1.10	560	1.51	1.10	
Mohammadpur	1148	3.95	1.05	1067	3.40	.95	1170	3.73	1.00	
Muktagachha	25	.06	1.22	48	.10	1.05	88	1.18	1.20	
Nagarpur	549	1.87	1.35	350	1.29	1.30	450	1.65	.80	
Parshuram										
Raipur	-99	.00	-99.00	50	.29	.60	-99	.00	-99.00	
Ramgati	600	.93	.85	600	.94	.92	1000	1.57	.85	
Sadar	131	.15	1.16	102	.12	.85	209	.24	.95	
Savar										
Shahrasti	15	.08	.83	10	.05	.60	10	.05	.55	
Shakhipur	-99	.00	-99.00	-99	.00	-99.00	1	.00	1.22	
Trisal	45	.12	1.30	42	.11	1.20	45	.12	1.25	

Data not provided for 6 upazilas



THANA_NAME	NCNAME									
	Kheshari									
	A97	PCA97	YLD97	A88	PCA98	YLD98	A99	PCA99	YLD99	
Aditmari	5	.02	.30	40	.15	.32	27	.10	.35	
Agailjhara	45	.39	1.21	65	.69	1.15	75	.67	.88	
Atwari										
Bailadangi										
Baniachong										
Barisal	1050	4.83	.86	1400	7.71	1.20	1200	4.65	.55	
Bhola	1900	5.10	1.10	2350	6.15	1.00	2360	6.24	.50	
Birai	18	.05	.51	19	.05	.48	19	.05	.52	
Bishwanath										
Boranuddin	400	1.14	1.30	590	1.61	.80	650	1.68	.75	
Chiribandar	81	.20	.74	71	.19	.76	57	.14	.74	
Dautlatpur	180	.72	.86	136	.54	.84	117	.49	.84	
Dabiganj	19	.05	.75	9	.02	.72	250	.58	.75	
Gaurnadi	275	2.51	.77	300	2.90	.70	210	2.00	.60	
Godabari	60	.12	.65	65	.12	.55	120	.21	.61	
Kaharol	60	.21	.64	65	.22	.68	74	.25	.65	
Kaiganj	5	.02	1.50	0	.00	.00	0	.00	.00	
Lalmanirhat	23	.06	.75	30	.08	.80	22	.07	.76	
Menendiganj	1122	4.54	1.02	948	2.63	1.10	1062	3.27	1.00	
Mohanpur	58	.28	2.00	75	.37	1.00	90	.49	.90	
Naogaon sadar	58	.18	.91	50	.16	.92	60	.18	.91	
Porsna										
Rajibpur (Dhusmara)	90	.74	.90	90	.74	.90	125	1.01	.89	
Rainagar	1	.00	.56	1	.00	.45	2	.01	.46	
Singair	626	2.41	1.30	772	2.50	1.40	874	2.83	1.48	

Data not provided for 5  
Upendra

THANA_NAME	CODE VARIA									
	Kheshat									
	AR97	P97	YLD97	AR98	P98	YLD98	AR99	YLD99	P99	
Bagerhat Sadar	221	1.52	7	245	1.29	800	146	763	.80	
Barhatta	22	.10	1100	30	.12	1090	53	1140	.18	
Batiaghata	51	.34	934	10	.07	950	11	949	.08	
<del>Bera</del>	1190	6.38	810	1200	6.57	720	1230	456	6.26	
Bheramara	140	1.02	1300	143	.97	306	138	1311	.91	
Daulatpur	180	.48	1320	144	.35	1447	141	1499	.34	
Dumuria	41	.12	1112	39	.12	1105	30	1111	.10	
Durgapur	2	.01	1000	5	.02	1000	5	1000	.02	
Harinakundu	320	1.31	760	240	.99	750	150	740	.50	
<del>Harawardi</del>	1725	7.25	1370	1450	5.77	1290	1275	1322	5.07	
<del>Hingaidaha</del>	225	.42	1239	212	.38	1111	200	1495	.36	
Kendua	20	.06	1200	20	.05	1100	15	1000	.04	
Kushtia Sadar	170	.52	1650	166	.48	1790	176	1667	.54	
Maheshpur	120	.27	1360	162	.36	1200	116	1190	.25	
Mirpur	890	3.39	1802	877	3.34	1820	846	1721	3.31	
Mollahat	35	.19	3000	39	.14	2889	38	3137	.22	
Nachol	590	2.11	762	570	2.10	911	540	800	1.80	
Nawabbanj	925	2.60	810	1200	3.22	840	937	870	2.43	
Paikgachha	32	.15	1235	29	.12	1343	32	1284	.87	
Purbadhala	40	.12	800	45	.13	750	50	800	.13	
Rampal										
Ramu										
Santhia	2080	5.95	1385	1965	4.84	1285	1850	1334	4.46	
Sarankhola	225	3.27	990	250	3.34	1160	265	941	3.79	
Shibganj	870	2.65	800	650	1.32	800	750	820	1.69	
Sujanagar	550	2.56	787	650	3.14	717	432	925	1.94	
Terakhada	50	.41	1340	75	.49	1400	73	1400	.69	

Data not provided for 2 villages



## A Glimpse on Benefit-Cost Ratios of Selected Crops 1998/99 Growing in Different Upazilas

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Costs and return data by crops were collected for each of the 200 upazilas by the four ARMP/GIS Teams for the year 1998/99. Costs and return data for the following crops were collected:

Banana, Garlic, Groundnut, HYV Aus, HYV Boro, HYV T.Aman, HYV Wheat, and Jute (Tossa). Benefit cost ratios of common crops reported by the Teams were selected for discussion. The aim of this reporting is to assess the level of returns relative to costs of inputs (cash and home supplied) and check whether extreme magnitudes emerge of the information provided. Teams are expected to revise extreme/unreliable figures where detected.

For estimation of Benefit-Cost ratios, costs were imputed on market prices prevailing in the area (for purchased inputs as well as home supplied inputs). Cost items included total human labour (both hired and own labour), total animal labour/tiller services, seed/seedlings costs, chemicals (fertilizers and pesticides), manures and irrigation costs. Farm returns (benefits) included output value of main product and by-product. Benefit cost thus derived indicates farm returns (gross) relative to costs (except opportunity costs of land). Findings are discussed briefly cropwise and Team-wise.

### 1. Banana (for each crop, Tables appended)

**BAU Team 1 :** Reported banana cultivation for 7 upazilas (no data available for rest of the upazilas). B/C ratio for 7 upazilas (commercially cultivated bananas) ranged between 4.82 to 8.09. B/C ratio reveals a high return for Banana cultivation. Benefit is 8 times then costs should be considered quite lucrative, of course, area under cultivation of banana has been growing exponentially.

**BAU Team 2 :** Reported banana cultivation for 21 upazilas (out of 50 in each Team). Benefit ranged from 0.93 (ratio) to 12.41 (Monohardi). Considering the comparison of three Teams, B/C ratios of 12.11 and 10.39 seem (Meherpur Sadar) certainly very high figures (coversely costs could be so thin than the benefits!).

**BRRI Team :** Reported banana cultivation for 38 Upazilas. B/C ratio ranged between 2.05 to 6.42 (the range is modest as reported by this Team).

**DU Team** not reported banana cultivation for any Upazila

### 2. Garlic

Zohir (1993) estimated Benefit-Cost ratio of garlic in his study area as 2.68 (Value of product and by-products over full costs of production).

**BAU Team 1 :** Reported garlic cultivation for 7 Upazilas (data not reported for rest of the Upazilas). B/C ratio per unit of area (hectare) ranged between 4.82 (Joypurhat Sadar) to 8.09 (Chandpur Sadar). Eight times benefit of costs (species group) seems certainly higher while the country is dependent on import of this crop annually.

**BAU Team 2 :** Reported garlic cultivation for 21 upazilas out of 50 Upazilas for which data were collected. B/C ratio ranged between 2.85 (Nagarpur) to 4.57 (Bhaluka).

**BRRI Team :** Reported range has been 2.07 (Bhola Sadar) to 3.34 (Bochagonj) and depicted lower range of benefit level than the BAU Teams. BRRI reported garlic cultivation for 18 Upazilas.

**DU Team :** Reported garlic cultivation for only 10 upazilas out of 50 Upazilas. B/C ratio ranged 1.87 to 6.70. Garlic cultivation seems highly profitable as the B/C ratio signifies.

### 3. Groundnut

Zohir's (1993) estimated B/C ratio for this crop has been 1.47.

**BAU Team 1 :** Reported groundnut cultivation for 24 Upazilas where the B/C ratio ranges from 1.96 (Austagram) to 6.47 (Chuadanga Sadar). Groundnut cultivation is profitable at least about twice to six times than the cost.

**BAU Team 2 :** Reported groundnut cultivation for 36 upazilas where profitability (B/C ratio) ranges from 0.65 (Bandarban Sadar) to 9.78. Practically, profit more than 3-4 times of cost for any crop should be considered high.

B/C ratio reported higher by both BAU 1 and BAU Team 2 than BRRI Team. BRRI Team reported groundnut cultivation for 28 Upazilas. DU Team reported the least number of Upazilas (3 only) cultivating groundnut. BRRI Team findings on B/C ratio ranges from 1.05 to 2.02 (i.e. benefit not exceeding twice than the cost) and seem reasonable.

**DU Team :** reported B/C ratio has been 2.03 (Kazipur) to 7.62 (Brahminbaria). There is sharp difference between BRRI Team B/C ratios with other Teams. So high profitabilities (say, more than 3-4 times for oilseeds) may remain as suspect in Bangladesh's farming environment.

### 4. HYV Boro

Zohir's (1993) estimated B/C ratio for this crop has been 1.50.

**BAU Team 1 :** Reported HYV Boro cultivation for all the upazilas except Hatia in 1999. Compound B/C ratio emerged from 1.21 (Pirojpur Sadar) to 2.18 (Hathazari). In the reported year, HYV Boro cultivation encountered no losses, profitability exceeded double of the costs for three Upazilas.



**BAU Team 2 :** Reported cultivation of HYV Boro for 49 Upazilas (Amtali Upazila no information provided). In Boro HYV cultivation loss incurred in 7 Upazilas out of 49. The highest B/C ratio is 1.80 (Madhupur Upazila).

**BRRI Team 3 :** provided information for all the Upazilas. In HYV Boro cultivation the only loss incurring Upazila was Kishoregonj. Benefit/Cost ratio ranged between 1.21 to 1.95.

**DU Team :** not reported information for 5 upazilas (Why?, upazilas are Daulatpur, Kathalia, Kendua, Purbadhala and Sarankhola).

## 5. HYV Aus

Zohir's (1993) estimated B/C ratio for this crop has been 1.47.

**BAU Team 1 :** Reported information for all the upazilas. B/C ratio has been less than 1 in 2 upazilas and others ranged between 1.04 to 1.90.

**BAU Team-2:** Reported information for 48 upazilas out of 50. Three upazilas incurred losses in cultivating HYV Aus. Benefits doubled in 5 upazilas.

**BRRI Team :** Reported HYV Aus cultivation except one Upazila (Daulatpur). HYV Aus cultivation incurred losses in 3 upazilas. B/C ratio was greater than 1 and less than 2 in all other upazilas.

**DU Team :** Reported HYV Aus cultivation for 39 upazilas and no calculation could be arrived at for 11 upazilas (must be checked whether data entries are correct). B/C ratio received doubled in 4 upazilas and tripled in 1 upazila Ullapara (profitability now a days may not be so high with HYV Aus cultivation and must be checked).

## 6. Local Aus

Zohir's (1993) estimated B/C ratio for this crop has been 1.15.

**BAU Team 1 :** not reported Local Aus cultivation for 8 upazilas. **BAU Team 2** for 6 upazilas. **BRRI Team** for 11 upazilas and **DU Team** for 8 upazilas. **DU Team** reported B/C ratio of Local Aus 15.54 which must be absurd and corrected. Doubling of benefits for some of the upazilas was reported by every Team except BRRI.

## 7. HYV Aman

Zohir's (1993) estimated B/C ratio for this crop has been 1.61.

**BAU Team 1 :** not reported cultivation of HYV Aman for 2 upazilas (Hatia and Srimangal). **BAU Team 2** reported cultivation of HYV T.Aman for all the upazilas. **BRRI Team** reported for 48 upazilas (Bishawnath and Daulatpur left out) and **DU Team** reported HYV T.Aman cultivation for 44 upazilas (6 left out). B/C ratio is more than 1 for 23 upazilas and doubled for 4 upazilas as of BAU Team 1. **BAU Team 2** found losses in HYV Aman cultivation for 3 upazilas and double benefits accrued to 2 upazilas.

BRR1 Team observed losses in 2 upazilas and nowhere benefits got doubled (between 1 and 2) and the results seem acceptable. DU Team reported losses in 3 upazilas and reported benefits doubled than the cost in 9 upazilas.

## 8. HYV Wheat

Zohir (1993) estimated B/C ratio for this crop has been 1.13.

BAU Team 1 : Reported cultivation of wheat for 39 upazilas and B/C ratio of 17.33 in HYV wheat cultivation in Sharupkhati must be considered absurd and correction should be done by field visit.

BAU Team 2 : Reported wheat cultivation for 46 upazilas. Costs of wheat cultivation surpasses benefits in 15 upazilas and nowhere benefits got doubled (benefits of wheat cultivation got squeezed now a-days as researchers observed in micro-studies). BRR1 Team reported losses in wheat cultivation for 2 upazilas and none depicted benefits as twice of the costs. Estimation for this crop seems reasonable.

DU Team : Reported losses in wheat cultivation for 5 upazilas and benefits achieved doubled than the costs in 8 upazilas (a bit different results than other three Teams).

## 9. Jute Tossa

Zohir's (1993) estimated B/C ratio has been 1.29 for jute olitorius.

Jute Tossa cultivation has been reported for 28 upazilas by BAU Team 1, 38 upazilas by BAU Team 2, none reported by BRR1 (why?) and 6 upazilas by DU Team. BAU Team 1 reported losses in one upazila and in others benefits ranged between 1 and less than 2. BAU Team 2 reported losses in jute Tossa cultivation for 9 upazilas and benefits exhibiting 3 times of costs (not as feasible for jute crop while the crop is considered a dying crop in 4 upazilas). The cases showing 3-4 times benefits of costs for jute must be re-checked.

DU Team : Reported loss in jute (tossa) cultivation for 1 upazila and B/C ratios doubled for 4 upazilas.

All expected B/C ratios should be corrected by field visits wherever necessary.

## References :

Zohir, Syed (1993) Input-output coefficients in crop production Activities in Bangladesh-with results of relative financial profitabilities at farm level. Working paper No. 1 BIDS.

Copy for information and necessary actions -

- (i) MD, AERS Division, BARC
- (ii) NID, GIS Project, BARC
- (iii) Dr. Gulamara Khan, PSO, AERS Division, BARC



Yields under major crops-BAU TEAM - I

DIST-NAME	THANA-NAME	Banana	Chickpea	Cotton	Garlic	Groundnut	Hybrid Aman	Hybrid Boro	HYV Aus	HYV Boro	HYV T <sub>1</sub>	Aman	HYV Wheat	Wheat	HYV (Doubt)	Wheat (Tosar)	Local Aus
BAHAR	BAHAR	1308				1682			1402	4000	2841					922	1869
BAHAR	BAHAR					1568			2800	4106	2796					709	1241
BAHAR	BAHAR	2331							2712	4666	3546		2426			1722	747
BAHAR	BAHAR								2786	4490	3061		2352		1241		2240
BAHAR	BAHAR	2790				1196			1944	4672	3243		2056			1420	1420
BAHAR	BAHAR								2786	5040	3360		2240		2613		2053
BAHAR	BAHAR								2904	4112	3364						1755
BAHAR	BAHAR					1493			2426	4480	2786						1680
BAHAR	BAHAR					1307			2426	4293	2613						1755
BAHAR	BAHAR								2990	3738	3551						1308
BAHAR	BAHAR					2318			1682	4486	2990		2355			1869	1308
BAHAR	BAHAR					1866			3360	4666	3733		2389			2053	2240
BAHAR	BAHAR					2318			3551	4224	3551						2240
BAHAR	BAHAR					1308			3215	4635	3215		2617			1383	1308
BAHAR	BAHAR								3546	5413	3845		2314			2240	2240
BAHAR	BAHAR					271			2900	4106	3733		2240				2053
BAHAR	BAHAR								2900	4666	3733		2352			2426	2016
BAHAR	BAHAR								3299	5757	3738		2056			2056	1495
BAHAR	BAHAR								3733	4853	3720		2240			2240	2986
BAHAR	BAHAR								3546	5413	3733		2240			2426	2240
BAHAR	BAHAR								3173	5046	3364		2804			2430	3177
BAHAR	BAHAR								3173	5413	3546		2090			2053	1120
BAHAR	BAHAR								2243	3177	2617		2243				1308
BAHAR	BAHAR								3173	5413	3733		2240			2090	2240
BAHAR	BAHAR								3173	4853	3920		2240			2426	2240
BAHAR	BAHAR								2800	4666	3360		2426			1794	1866
BAHAR	BAHAR								2766	4635	3551		2168			1882	1682
BAHAR	BAHAR								2804	5046	3738		2430			1991	1794
BAHAR	BAHAR								2804	4672	3551		2056			1991	1794
BAHAR	BAHAR								2986	4853	3546		2240		1493	672	3053
BAHAR	BAHAR								3173	4853	3733		2800			2426	2986
BAHAR	BAHAR								3327	5084	3813		2168			1682	1682
BAHAR	BAHAR								3177	4859			2093			1869	2467
BAHAR	BAHAR								2800							921	
BAHAR	BAHAR								2804	4187	3177		2355			673	1682
BAHAR	BAHAR								3215	4486	3551		2430			673	1570
BAHAR	BAHAR								2900	5040	3360		2426			672	1792
BAHAR	BAHAR								2613	4666	3173		2240				1680
BAHAR	BAHAR								3658	5525	3658		2426			1680	2314
BAHAR	BAHAR								2318	2617	2542					561	1495
BAHAR	BAHAR								2243	2617	2617					561	1420
BAHAR	BAHAR								3658	5413	3546		2352			2240	2426
BAHAR	BAHAR								2617	4112	2990		2617			1495	1308
BAHAR	BAHAR								3299	4496	3663		2243			1906	822
BAHAR	BAHAR								2990	4486	3813		2093			1869	934
BAHAR	BAHAR								2990	4859	3588		2617			1495	822
BAHAR	BAHAR								3140	5046	3140		2430			1794	822
BAHAR	BAHAR								2800	4666	3733		2240			747	1680
BAHAR	BAHAR								2990	4486	3177		2243			2056	897
BAHAR	BAHAR								2613	4554	3546		2426			2240	2240



Yields under major crops-BAU TEAM - I

DIST-NAME	THANA-NAME	Local B	Aman	Local Boro	Local T	Aman	Maize	Mungbean	Mustard	Onion	Potato	Sesame	Sugarcane
SARGUJA	SARGUNA SADAR			1794		1859	2056	922	1009				17547
SARGUNA	PATIHARGHATA					2053		747	921		20532		44796
BOGRA	BOGRA SADAR					2986	2240		1866		17918		
BOGRA	SABTALI			1866		2053		709	933		14932		27251
CHANDPUR	CHANDPUR SADAR		1495	2542		1682	4299	1009	860	6654	15513		25792
CHANDPUR	JATLAB		2128	2053		2240	3173	921	747	3920	16798		25384
CHITAGONG	ANCHWARA					1869		523	748		15700		46725
CHITAGONG	HATHAZARI					1680		747	597		11759		48529
CHITAGONG	BATA					1866		747			8959		49462
CHITAGONG	RAHIGUNIA					1869		523	822		15700		46725
CHUADANGA	CHUADANGA SADAR		1682			1794	3364	673	748	6728	16821	561	59808
CHUADANGA	ALAMDANGA		2016			2240	1866	672	933	8399	15679	635	55248
COLEBAZAR	LHOKORIA					2504	5084		1271		15700		57752
FARIDPUR	FARIDPUR SADAR		1121	2131		2430		673	934	8410	16447		35511
FARIDPUR	SADARPUR		1680	1568		2202		747	933	9566	15865		59728
FEH	GHAGALNAYA		2240					672	971		16425		
GOPALGONJ	ISLAMPUR		2240	2240		2426	2016	635		9332	15492		63461
GOPALGONJ	MUKSHEDPUR		1682	2245		2430	2243	449	922		15326		
JAMALPUR	JAMALPUR SADAR		2613	2314		2800	2128	747	1120	2986	17918		24264
JAMALPUR	SHARSABARI		1866	1866		2240	2128	672	933	9146	15679		50396
JAMALPUR	MELANDAHA		1869	3551		2243	4672	673	1308	7476	16634		24671
JOYPOURHAT	JOYPOURHAT SADAR			1682		2240	1792			9332	14932	672	44796
KHAGRACHHAR	KHAGRACHHAR SADAR					1682		561	972		13083		42052
KISHOREGANJ	MOSSENIPUR		1680	1866		2053		672	821	8959	15679		
KISHOREGANJ	AUSTIAGRAM			2426		2800	1941	821	559		14932		23331
LAKHMIPUR	LAKHMIPUR SADAR		1978	3173		2240	4293	672	1120	9959	15492		
MAGURA	MAGURA SADAR		1607			1794		934	972	4672	14952		
MAGURA	SHALUKHA		2056			2804	3177	561	748	6728	16073		59808
MEHERPUR	GANGNI		1682	2168		2243	2430	673	1196		15513		46725
MYMENSINGH	MYMENSINGH SADAR			2426		2240		747	933	8213	11946		
MYMENSINGH	GOURIPUR		2986	3546		3173	1866	747	6159	8213	18665		24264
MYMENSINGH	HALLAGHAT			2430		2019	3177	1047	960		15886	934	46725
MYMENSINGH	SRINAGAR		1495	1906				1084	8037	17008			47099
NOAKHALI	HATIA		1866					747	1120		13066		
NOAKHALI	SENAG			1794		2168		822	748	785	16073	972	
NOAKHALI	RAIPURA			1794		2168		710	860	7850	15326	972	46725
PIROJPUR	PIROJPUR SADAR		1866	3173		2613		971			9332	821	46662
PIROJPUR	SHARUPKATI		1493	2613		2053	3360	635	560		15492		52262
RANGAMATI	BOALMARI		1419	1493		2314		672	933	9519	16052		33597
RANGAMATI	KAPTAI					1682		449	1047		13083		44856
RANGAMATI	RAJASTHAU					1682		374	935		13083		43922
SARIAIPUR	NARIA		1680	1866		2240		672		8586			
SARIAIPUR	PALONG		1869	2430		1944	4299	785	1121		15286		32708
SATKHIRA	SATKHIRA SADAR		2056			2093		710	860		15886		39436
SATKHIRA	DEBHATA					2990			822				
SHERPUR	SHERPUR SADAR		1869	2056		2056	2504		1009	7850	11027	748	44856
SHERPUR	JHENAIGATI			2318		1832	2280	561	822		15700	561	46725
SUNAMGONJ	SUNAMGONJ SADAR		1680	2426		2240		672	1008	7839	15305		
SUNAMGONJ	BISHWAMBARPUR		1682	2617		2056		748	934		15700		
SUNAMGONJ	JAGANNATHPUR		2240	2053		2314		672	747	8586	14932		

1861 2763 2196 2886 702 1058 7469 15232 766 13322



Yield of different crops (Kg/Ha)-BAU-II

	CODE-VAR																			
	Banana	Chickpea	Garlic	Groundnut	HYV Aus	HYV Boro	HYV T. Aman	HYV Wheat (Tosara)	Jute	Lentil	Local Aus	Local B. Aman	Local T. Aman	Maize	Mungbean	Mustard	Onion	Potato	Sesame	Sugarcane
	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD
Amritali		330		1900	2000		2000			780	1250		1200	4500	580	900		12000		
Balakandi			3000	1250	1800	3100	2500	2200	1700	700	750	800	1800	4500	500	600	3600	18000	1250	54000
Bancaran Sadar				1500	2200	2950	2780			800	1070		2100	2000	700	1000		14000	1000	50000
Basari	11100			200	2580	5400	4300	2900	2000	900	1620					710		10500		
Baunahi	10000	1100		1000	3340	4070	2790	2500		900	1670	1700	2220	3270	600	350		12000		35000
Begumegani					2000	3000	2650	3500	2500		900		1750	1810	3500	750		15000		
Bhaluka			3650	2200	2450	4950	3900	2500	8500	800	1800		2850	2100		810	3400	15000		
Bhuapur	12000		3200	1900	2050	4500	2500	2300	6500	800	1575					850	3100	16000		
Damrukhuda	28000	600	3150	800	2500	4000	3000	2450	2400	750	1260	1000	1300	1200	500	1000	3150	20000	650	63000
Deiduar	15600			2300	2150	5300	4200	3000	2200		1650	1450	2500	2350		720	3900	168000		
Feni Sadar					1580	4970	2750	2500		675	1000		2200	1200	600	1190		14000		45000
Ghatail	12500				2250	5300	4380	2300	2100		1800					1050		15500		
Gopapur	14500		3300	2100	2250	5100	4500	2250	7800	910	1875		2175	2300		950	4000	16500		
Gualanda		740	2600	1380	3050	5100	3530	1210	9800	640	1400	1580	1350	1850	580	680	3250	12000	700	42000
Jibannagar	15000	500	3200	1500	2770	4570	4560	2220	3000	1050	1410	2490	2900	2800	1150	1150	3250	16500	1300	45000
Kalai			2400		2950	5430	4650	2450	2100	925				2150		895	3500	18500		
Kalapara		1150			2800	4000	3500	1850		1000	1250		1860	1800	850	850		11500	950	60000
Kalaroa		840				3500	4040	1220		560				2550		780		18000		43000
Kalihat	14500			1950	2100	4950	3150	2300	9200	900	1950		2250	2100		1000		17500		
Karimganj	16500			1800	2850	4450	3310	2350	8500	750	2012		2900	1920		8100		15000		
Kutubdia					3180	3080	3200			700	2300		1500	1880				8000		
Lonagara	29000	590		1100	2330	4500	3160	1800	1700	750	1010	1380	2480	1840	550	750		14000	700	3000
Madaripur Sadar		500	2840	2250	2000	5000	2500	2500	3500	850	1500	1500	1640	2100	800	780	3910	15000		45000
Madhopur	12000		3500		3000	5500	4500	3000	9300	450			2800			500	3100	16000		45000
Meherpur Sadar	42000	550	3000	1650	4400	5000	2420	2300	2170	1100	2000	1800	2800	2000	550	1200	3550	18000	600	60000
Mirzapur	14500			2100	2100	5200	3500	2250	9200	850	1850	1900	3100	3050		890		17500		
Monammadpur		845		1500	3250	4535	3520	1405	1650	830	1100	2000	3100	2400	750	975		15750	930	23400
Monohordi	44000		3150		2200	3300	2700	2400	2000		1100		1400	1300		940	4000	14250		70000
Muktasachha	16500		3700	1800	2850	4450	3310	2350	8500	750	1950		2900	1920		8100	4100	15000		
Munshiganj Sadar				1800	1350	5500	3250	2100	1900		750	1400	1850	2100		1040	3800	20000		70000
Nagarpur	13500		2500	2000	2800	4700	3200	2350	9500	850	1750		3200	2850		900	3120	18000		
Nakla		700	2600	2070	1900	3500	2410	2200	2100	780	1500		2000	1800	820	1200	4150	12000		51000
Nandigram					2770	5000	3300	2350	2500	850	2350		2300			980		19500		
Panchobibi			3500		2850	5540	4500	2550	2500	900				2250		1000	3550	18400		
Parashuram		1000		2000	2870	4040	2810	3000		950	1470			5000	1000	930		16000		
Patuakhali Sadar	15000				2500	3850	2500	1750		1000	1700			1400	850	850		14500		80000
Raipur		350		1500	1950	2950	2120	1540	6000	650	1050	1660	1640	650	500	710		15000		40000
Rajoir		800	3100	1750		5460	4050	2190	1800	850	1670	1950	1860	2500	4850	780	4150	12850		
Ramgati	2850		600	1050	3100	4450	2680	1750			1800		2230	4500	550	500		11000		37500



Yield of different crops (Kg/Ha)-BAU-II  
CODE-VAR

	Banana	Chickpea	Garlic	Groundnut	HYV Aus	HYV Boro	HYV T. Aman	HYV Wheat (Tosali)	Jute	Lenil	Local Aus	Local B. Aman	Local Boro	Local T. Aman	Maize	Mungbeen	Mustard	Onion	Potato	Sesame	Sugarcane
	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD	YIELD
Rangamati																					
Sadar		700		1700	2080	3250	2450			300	1000	1810			1860	700	960		10350	500	40000
Sakhipur	14000				2030	4800	4100	2250	8200	950	1750		2100	2200			1120		17500		
Sariskandi		1480	2680	1900	1560	4560	2500	2240	2500	980							890	3500	13800	920	60000
Savar				2000	2250	5000	3700	2500	2500	1200	1300	1800	2750	1950			950		18500		
Shahrasti			2500	1500	2200	3500	2260	1350	3570	500	1500	950	1800	1650	4000	350	650	3500	10000		40000
Shibganj	25000		3100		2490	4740	3550	2890	3440					2370			930	3250	14370		
Shibpur		1500	2800	1650	2150	4790	3270	2400	2850	1000	1840	1350	2000	1500	5000	350	880	3200	14500		40000
Sitakunda		1000		2000	2170	3530	2540	2700		1000	1170			1650	4500	1500	780		14000		45000
Sonargaon		800		1900	2450	3850	3200	3400	6650	1000	2100	2150	2500	2680		700	1000		12000		
Tangail Sadar				2000	2950	5350	4150	2320	9000	820	1950		3150	2350			750		17200		
Total				1700	2150	5100	4200	2230	8000	800	1800		3850	3400			920		15000		



DISTRICT NAME	THANA NAME	Banana	Chickpea	Cattle	Groundnut	Hybrid Boro	HYV Aus	HYV Boro	HYV T Aman	HYV Wheat	Julis (Dashu)	Local Aus	Local B Aman
BARISAL	AGAILHARA	15496	1236		1202		3174	5975	3361	1979	1568	1967	2070
BARISAL	BARISAL SADAR		1382		1345	5796	3361	6124	4443	2427	2166	2166	2427
BARISAL	GALONADI	17550	1344		1494		3772	5975	4294	2315	2166	2241	2539
BARISAL	MEHENDIGONJ	17923	1345		1345	6835	3510	6273	4107	2390		2315	2539
BHOLA	BHOLA SADAR	20761		3983	1643		3547	6275	4630	2539		2315	
BHOLA	SHUPHANUDOIN	19865	1195		1419	6721	3660	6050	3958	2614		2315	
COX'S BAZAR	COX'S BAZAR SADAR	19000			1800		3750	5125	4150				
DHAKA	VERANIGANJ		1120	5863	1680		3585	5750	3883	2016	1792	2016	2091
DINA PUR	BOAL	22106		4668			4294	5825	4481	2614	2016	2240	
DINA PUR	BOCHAGANJ	22031	1195	6721		6647	4257	5900	3807	2390	2091	822	
DINA PUR	CHIRIBANDAR	19670	1195	4854			3470	5675	4406	2390	1942	746	
DINA PUR	DINA PUR SADAR	19417	1195	5788			3921	5601	4182	2128	1904	447	2091
DINA PUR	FAHAROLE	20537	1347	5600		7842	3660	5526	3734	1867	1942	822	2128
GAIBANDHA	GAIBANDHA SADAR				1270		3062	5041	3174	2427	1867	934	1942
GAIBANDHA	SOBINDAGANJ						3548	4817	3174	1867	1867	2166	
GAIBANDHA	PALASHBARI	19347					3785	5642	3698	2675	2076		
HABIGANJ	GANIACHONG					7356	4480	5704	4107	2636	2315		1792
HABIGANJ	HABIGANJ SADAR	17076			1456		3782	5365	4126	2650	1926	920	1980
HABIGANJ	MADHABPUR	16756	930		1305	6533	3508	5850	3748	2578	1972	853	1990
KURIGRAM	CHAR RAJBUR	17780	934		940		3734	5040	3361	2465	1755	747	1923
KURIGRAM	NAGESWARA	21500	920		934		3361	5041	3947	1867	1618	746	1906
LAUMONIRHAT	ADITMARI	19790	1419	5825	1083		3361	5153	3473	2166	1793	747	2091
LAUMONIRHAT	KAUGARI	19865	1494	5863	934		3921	5190	3286	1867	1680	710	2166
LAUMONIRHAT	LAUMONIRHAT SADAR	17550	1344	5788	1382		3659	5078	3435	2390	1606	822	2166
MANIKGANJ	DAULATPUR	19790	1195		1307			5900		2315	2091	784	2016
MANIKGANJ	MANIKGANJ SADAR	16990	1008		1456		2622	6274	3660	2353	2016	672	1792
MANIKGANJ	SATURIA		1083		1419	7095	3585	6124	3585	2166	2278	747	1792
MANIKGANJ	SHINGAIR		971				3361	5452	3170	2240	2016	822	1755
MOULBIBAZAR	RAJNAGAR	16069	932		1260		3585	4406	3473	2295		858	1904
NAOAGACN	MANDA	19230	1121	5975			3510	5228	4107	2054	1867	859	2240
NAOAGACN	NAOAGACN SADAR		1195	5663			3510	5825	3921	2987	2315	672	2203
NAOAGACN	PORSHA		971	5414			2764	5040	3585	2240	1795		
NATORE	NATORE SADAR	19790	1120	4890	1206	6422	4106	5601	3760	2316	1830	834	1755
NILPHAMARI	KISHOREGANJ			5600		7842	3360	5600	3547	2315	1792	784	2240
NILPHAMARI	SAIDPUR		1120			5975	3734	5041	4114	2600	1196	1160	1695
PANCHAGARH	ATWARI	16430	1120		1158		4294	5601	3921	2614	1680	672	
PANCHAGARH	BOOA	16550	982	4975	1195	6958	3809	5341	3964	2532	1670	742	1755
PANCHAGARH	DEBIGANJ	19670	1270		1120		3547	5788	3361	2240	1680	747	2166
RAJSHAH	CHARGHAT	19417	1120		1643		3323	5340	3622	2390	2054	822	2240
RAJSHAH	GODAGARI	19417	971	5601	1419		3398	5153	3659	2166	1867	675	2166
RAJSHAH	MOHANPUR	19417	1157				3435	5153	3547	2091	1867	752	2128
RAJSHAH	MITHAPUR	21657	1307		1045		3324	5526	3100	2054	1643	860	1942
RANGPUR	PIRGACHHA	22105	1120				3435	5228	3361	1867	1606	896	1792
RANGPUR	BALAGANJ	22105					3884	5788	2734	2240		1990	2390
SYLHET	BSHWANATH	18505					3628	4783		2826	2736		1630
THAKURGAON	BALADANGI	16177	1158	5897			4182	5040	3659	2427	1606	860	
THAKURGAON	HARGPUR	18558	920			7095	4108	5601	3547	2318	1545	846	
THAKURGAON	RANSANKAIL	19604	1195				4033	5414	3435	2427	1568	784	
THAKURGAON	THAKURGAON SADAR	17923	1120		1307	6610	4294	5414	3360	2365	2240	822	2060



DISTRICT NAME	VARIETY NAME	Local Boro	Local T. Aman	Maize	Mungbean	Mustard	Onion	Potato	Sesame	Sugarcane
BARisal	AGAILHARA	2240	2913	2875	721	700		16277		
BARisal	BARIAL SADAR	2577	3025	2370	996	996		17850		
BARisal	BARIALNADI	2465	3020	3249	747	996		19118		
BARisal	MEHENDIGONJ	2315	2699	2913	959	959		18595		60678
BARisal	SHOLA SADAR	2577	2913		1046	971	5676	19342		60938
BARisal	BLUHANUDON	2278	2540	3660	747	971	5452	18957		50000
BARisal	COX'S BAZAR SADAR			3460		1200		14820		
CHAKA	HERAMGANJ	2129	2539	4630	996	1008	7655	18521		55338
CHAKA	33AL		2838		747	1046	8028	18043		64599
CHAKA	BOCHAGANJ		1942	1236		971	9522	19371		56010
CHAKA	CHIRIBANDAR		2539	4705	710	970	7990	19416	784	
CHAKA	DINAJUR SADAR		2091	4526	784	747	9634	18521		
CHAKA	KAHAROLE		2166			1046	9335	16803		64600
CHAKA	SAIBANDHA SADAR	1867	1867	3510		934		15870		53210
CHAKA	GOBINDAGANJ	2054	2224	3351		120	8515	18679		65345
CHAKA	PALASHARI	2166	1927	3809		1132		19043		65680
CHAKA	BANACHONG	3048	3025			1160		18745		
CHAKA	HABIGANJ SADAR	2390	2315	3540	716	998		20250		60032
CHAKA	MAOHARPUR	2524	2442		736	997		19426	640	
CHAKA	IGHAR RAJIBPUR	1494	2054			1046	7842	18446	747	52436
CHAKA	NAGESHWARI	1867	2241	2240	722	905		15803	704	54673
CHAKA	ADIMARI	2017	2539	4406	535	934	9082	16878	710	64599
CHAKA	JAUGANJ	2054	2241	2241	474	971	9455	17065	747	64673
CHAKA	LALMONIRHAT SADAR	2016	2166	3734	710	934	8738	18483	710	51424
CHAKA	DAULATPUR	2315			747	996		16803	859	63478
CHAKA	MANIKGANJ SADAR	2390	2315	3647	635	934		18446	672	62731
CHAKA	SATURIA	2539	2614	3983		971		18446	672	62358
CHAKA	SHINGAIR	2091	2166	4020	747	996		16280		56533
CHAKA	RAJNAGAR	2241	2278	4182	696	1008		16251		
CHAKA	MANDA	2054	2801	4556	997	859	9709	13443	785	56010
CHAKA	NAOGAON SADAR	2427	2315		710	1046	9190	18484	785	65046
CHAKA	PORSHA		3062			934	8082	17485		
CHAKA	NATORE SADAR	2540	2278	4182	725	960	8738	17550	822	61462
CHAKA	KISHOREGANJ	1867	2614	3621		746	5788	14487		65345
CHAKA	SAIDPUR		1860	3865		970	8450	18417		65900
CHAKA	ATWARI	1912	1690	3100	860	860		17662	822	62297
CHAKA	BCDA	2154	1837	3660	722	765	7953	17550	860	
CHAKA	DEBIGANJ	1867	2016	4332	672	934		17737	934	67212
CHAKA	CHARGHAT		2763	4593	672	821		19342	747	64598
CHAKA	GOADAGARI	2577	2838	3622	635	1046	9708	17160	635	63478
CHAKA	MCHANPUR	2688	2838	4294		975	9895	19118	729	57578
CHAKA	MITHAPUR	2091	1942	4294	747	1008	16990		896	64598
CHAKA	PRGACHHA	1980	1718			934	7991	17736	934	
CHAKA	3ALAGANJ	2240	2240			1120		17923		
CHAKA	3OHANATH	2194	1894					20490		
CHAKA	BALIADANGI		1606	3547	747	860	7954	16430		52665
CHAKA	HARIPUR		2427	4070	714	1195	8620	19225	710	69535
CHAKA	DANSANKAIL		2315	4302	747	971	7841	16056		59744
CHAKA	THAKURGAON SADAR		1867	4295	784	1120	8476	16990	822	

235 L 2747 765 961 5271 17749 731 61023



Yields of Different crops (Kg/Ha)-DU

DIST-NAME	THANA-NAME	Garlic	Groundnut	HYV Aus	HYV Boro	HYV T. Aman	HYV Wheat	Jute (Deshi)	Jute (Tossa)	Lenfil	Local Aus	Local B. Aman	Local Boro
Bagerhat	Bagerhat Sadar			2775	3338	2400	2325	1388			2325		1500
Bagerhat	Melahat			2775		3338					2588		
Bagerhat	Rampal				4088	3338							2213
Bagerhat	Sarakkhola			2775	3713	3338		1500			2588	1313	1650
Barmanbaria	Akhaura			2688	4800	2325	1675			638	1313	1500	1125
Barmanbaria	Nasirnagar				2400	2213	1600					1500	938
Barmanbaria	Sharal			3150	4800		1575		1200	638	1500	1313	1763
Chapainawabganj	Nachol			3900	5100	4088	3338						
Chapainawabganj	Nawabganj			2963	5100	3225	2025	1838			1838		
Chapainawabganj	Shibganj	3338		3225	4650	3600	2775			825	1950	1388	
Comilla	Barura	2325		1388	3713	2025	1675	2025			750	1388	
Comilla	Charaina			2213	3713	2775	1763			938	1500	938	
Comilla	Comilla Sadar	2325		1575	4163	2775	2400			750		2025	
Comilla	Daudkandi			3225	3900	2025	1388	1125		825	1200	1125	
Comilla	Muradnagar			1313	4163		1125	1838		1313	1388	1388	
Cox's Bazar	Ramu			1013	3713	2775							
Jessore	Bagnerpara	3225		2700	4163	2963	1838				1575	1763	1650
Jessore	Jessore Sadar			2963	4463	3900					2325		
Jessore	Keshnapur			3225	4650	3713	1838	1950		750	2213		1838
Jhalakathi	Jhalakathi Sadar			1650	3900	4088					1313	2400	
Jhalakathi	Kanithaila			4163		4163				563	1388		
Jhenaidaha	Hannakundu			2588	3413	3525	2213		2325	825	1575	1763	
Jhenaidaha	Jhenaidaha			2963	4988	3225	2213		1950	1313	1763		
Jhenaidaha	Maheshpur	2513		1763	4725	2400			1650		1575	1125	1200
Khulna	Batlaghata	1950		2775	4650	2700	2138			750	1500		1950
Khulna	Dumuria	4650		2588	4650	3338	2025	1838		825	1838	1950	2588
Khulna	Paikgachha				4650	4163		1950		825	3713		
Khulna	Terakhada				4163	3713		1838		375	1388	1838	3225
Khustia	Bheramara	3713		2513	3713	3338	1650	1838		825	1650	1500	
Khustia	Daulatpur					2775	2775	2213			2775	2213	4163
Khustia	Kushita Sadar	1650		3713	4988	3900	2513	2213		1125	2213		
Khustia	Mirpur	3225		2513	4163	2325	1500	1838		750	1650		
Moulavibazar	Kamalganj			2400	3900	3225					1313		2588
Moulavibazar	Moulavibazar Sadar			2213	2963	2513					1125	1388	1650
Netrakona	Barnatia	1838		2588	4650	3713	2325	1950			1650	1838	2325
Netrakona	Durgapur	3713		2963	4163	3713	2213	1650		638	1650	2025	
Netrakona	Kendua			2775	4650	4163		1838			1388	2325	1950
Netrakona	Purbadhala	1838			3338	2325	1838	1650		938			1838
Pabna	Bera	3225			4650	2888	2025	1838		638	1600	1950	
Pabna	Shaward	3625		2213	4275	2213	2213		1838	638	1388		
Pabna	Sonithla	5100		2213	4800	2700	1763		1838	825	1313		
Pabna	Sujanagar				4725		2025	1650		750	1313	1500	1950
Sirajganj	Beelkuchi				4650	3150	1650	1600		1125	1013	938	1388
Sirajganj	Katipir		2025		4725	4350	2213		2400	750	1125	1763	1388
Sirajganj	Shahzadapur				3150		1675	1763		638	1125	825	2775
Sirajganj	Ulipara			3788	4725	2775	2138	2025		825	1313	825	1650
Sylhet	Zakiganj			1650	2513	2400					1600	1200	1388
Team Average		2914	1931	2605	4193	3130	2001	1793	1856	808	1661	1659	1945



Yields of Different crops (Kg/Ha)-DU

DIST-NAME	THANA-NAME	Local T. Aman	Mustard	Onion	Potato	Sesame	Sugarcane
Bagmati	Bagmati Sadar	1500	563		6938		2775
Bagmati	Malanai	2513					
Bagmati	Pamoli	2400			8325		
Bagmati	Satarkhola	2588					
Bagmati	Akhaura	1650	825		6488		
Barambaria	Hismagar	1313	825		6038		
Barambaria	Shari	1313	638		7425		
Chapainawabganj	Chapainawabganj Sadar	2775	750	7425	12038		5100
Chapainawabganj	Chapainawabganj Sadar	1838					
Chapainawabganj	Barua	1500	938				5550
Chapainawabganj	Chandina	1500	638	2775	11588		4538
Chapainawabganj	Gamilla Sadar	2213			12038		
Chapainawabganj	Gaulandani	1125	750	2775	11588		
Chapainawabganj	Muraanagar		1125	2775	8813		
Chapainawabganj	Pamu	1388		3713	9263		4650
Jessore	Baghera	2025	563	5550	12038		4538
Jessore	Jessore Sadar	1650	563	6300	9263		4163
Jessore	Kashipur	1950	750		12038		5738
Jessore	Udalkathi Sadar	2700	563		8325		
Jessore	Kanithala	3225					
Jessore	Hannakunda		938	3600	11100		
Jessore	Udalkathi		825	3225	12038		5550
Jessore	Manespur	1763	750	3713	10200		6038
Jessore	Baranagar	1575	1200	3525	11963		7050
Jessore	Dumuti	2325	938	938	11100	825	1838
Jessore	Pakgachha	2213	1125	2025	14813		
Jessore	Tarakhadda	2325	450			1313	5550
Jessore	Bharanagar		638	3713	8325		5550
Jessore	Gaulatpur		938	5550	8325		5550
Jessore	Kushtha Sadar		750	6488	13913		6488
Jessore	Mirpur	1650		3713	10200		5550
Jessore	Kamaliganj	2588			4163		
Jessore	Moulavibazar Sadar	1388	750		12038		
Jessore	Bainatia	2325	938	2775	11100		
Jessore	Durgapur	2400	825	6038	11588		4650
Jessore	Kenaua	2775			14813		
Jessore	Purbachala	1650	750	2775	10200		5550
Jessore	Bera			6300	10200		6488
Jessore	Lenowardi	1650		4463	10200		6488
Jessore	Sonithia		638	6675	12975		6938
Jessore	Sujanagar		638	4650	9263		
Jessore	Beelkuchi		938				
Jessore	Kazipur	2025	938		7875		5550
Jessore	Shahazadpur		1125	3713	6938		
Jessore	Ulabara		750		8325		
Jessore	Zakiganj	1313	938		12038		
Jessore	Paam Awadhi	1974	806	4208	10175	1069	5299



**Proceedings of the Meeting of the PIs of the ARMP funded Socio-Economic data collection Project held on 26 April, 2001 at the GIS Project Office, BARC.**

The meeting was convened by the NPD, GIS Project to discuss and appraise the latest position of socio-economic data gathering and submission by the ARMP/GIS Project. In absence of the Member-Director, AERS Division in the meeting (travelling India on official duty), Mr. Anwar Iqbal chaired the meeting. The meeting was attended by the PIs and the Associate PIs, and CSO of the AERS Division, Socio-Economic Specialist of the GIS Project, System Analyst of the GIS Project and Field Investigators of BAU, DU and BRR1 Teams. A list of the participants is enclosed in Annex-1.

- \* The meeting thoroughly discussed the data submission status of each of the team. All the data sets were received by the GIS Project (by the 3<sup>rd</sup> week of April 2001) for computer entries except input-output data sets of the DU Team. The DU Team agreed to submit fresh input-output data sets as earliest as possible. Input-output data submitted by the BAU Team-2 and DU could not be retrieved at the GIS computers.
- \* The System Analyst reported inconformities in some data formats and coding among the Teams which were earlier submitted for scrutiny and computer entry. It was decided that at the end of the meeting-computer data entry personnel of each Team would stay if necessary 2-3 hours at the BARC computer centre to help attain uniformity of data entry and coding system of the submitted data sets. And accordingly, relevant personnel stayed with the System Analyst for couple of hours for the job after the meeting formally ended.
- \* All the PIs assured the project Management that the respective Teams would revise and correct the data-sets in respect of inaccuracies and suspected information indicated earlier by the SES in writing. PIs agreed that they would be obliged to do any correction and revision work if arise in course of data management, use and handling. AERS Division was requested (as the custodian of data sets received from the Survey Teams) to check whether anything is left incomplete or uncorrected as per contract and decisions of the review meetings with the PIs before final project payments are made.
- \* SES would provide comments on input-output data of each Teams by using those data sets before leaving his term of assignment.
- \* The meeting felt that necessary steps be taken by the appropriate authority to complete collection of socio-economic data for the left-out/remaining upazilas to cover the country as a whole for socio-economic information.

### Decisions :

1. As per comments/written reports of the SES and discussion outcome of the present meeting, all the PIs' would modify the datasets including input-output data and submit corrected CD/disk and hardcopies to the GIS project management at the earliest possible time.
2. As per contract Research Project requirement, all the PIs' shall submit detailed draft report (5 copies) of the project activities including the database developed, input-output data and its applications in hardcopy to the AERS Division and to the GIS Project. AERS and GIS will provide comments, if any, for finalization of the report and accordingly final submission by the PIs' in required numbers.
3. Last 10% of the fund will be released on satisfactory production of the report.
4. In future, steps will be taken, depending on the fund availability, by BARC authority to complete data collection of the remaining upazilas.

The chairman ended the meeting with cordial thanks to the participating members and sought future cooperation of the Teams if need be for further modification, correction etc. of the present GIS project work and extended activities in this line in future.

(M. Anwar Iqbal)  
National Project Director  
GIS Project at BARC.

### Copy for information and necessary action :

1. Member-Director (AERS), BARC, Dhaka - for information, follow up and specific actions on the decisions.
2. Director General, BRRI, Joydebpur Gazipur
3. Registrar, BAU, Mymensingh
4. Registrar, Dhaka University, Dhaka
5. .... (All PIS')
6. .... (Meeting attended).



Persons attended :

- |  |   |
|--|---|
| 1. Prof. Md. Abul Bashir, PI<br>BAU Team 1 and<br>Coordinator, ARMP/GIS Project. | 6. Mr. Md. Abdul Latif<br>Associate P. I. BAU Team  |
| 2. Prof. Shamsul Alam<br>SES, GIS Project at BARC                                | 7. Dr. Shaukar K. Raha<br>Associate P. I. BAU Team 2  |
| 3. Dr. Selima Ahsan<br>C SO, AFRS Division, BARC                                 | 8. Mr. Raihan Sharif<br>Field Investigator, BAU Team-2,<br>Data Entry Personnel of BRR1<br>and DU Teams |
| 4. Prof. Fazlul Haq Shahi,<br>DU Team  | 9. Mr. Md. Hasan Ali<br>System Analyst<br>GIS Project at BARC.  |
| 5. Dr. M. A. Jabbar, PI<br>BRR1 Team   | 10. Mr. Abeed H. Chowdhury<br>Senior System Analyst, BARC, Dhaka  |